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NEWS SUMMARY

GENERAL

50,000 attend anti-PLO rally

A demonstration in London's Trafalgar Square, calling on the British Government not to negotiate with the Palestine Liberation Organisation, was attended by up to 50,000 people.

The rally was organised by the Board of Deputies of British Jews and the Zionist Federation. Its target was Lord Carrington, European Council of Ministers president. The council is pursuing a Middle East peace initiative. Israel feels this could lead to recognition of the PLO.

The Los Angeles Times claimed the U.S. has had secret contacts with the PLO for at least seven years, which are being maintained by the Reagan Administration, through the CIA and the U.S. Beirut embassy.

Moscow mission

Foreign Secretary Lord Carrington flew to Moscow to advance the EEC plan for Soviet withdrawal from Afghanistan. Back Page

Maze hopes high

Hopes continued high for resolving Ulster's Maze prison crisis after a second visit within 48 hours to the eight hunger-strikers by Irish Commission for Justice and Peace members. Back Page

Anti-racism fête

About 6,000 people took part in a "carnival against racism" procession in Leeds, organised by the Anti-Nazi League and Rock Against Racism. Police reported no trouble. Southall's Asians reassured, Page 5, Comment, Page 12

Battery advance

British Rail has produced sodium sulphur batteries one-fifth the weight of conventional lead-acid batteries and used them to power a van a half-ton lighter than previous battery-powered vehicles.

School milk move

The EEC has agreed to pay three-quarters of the cost of subsidising milk for UK primary schoolchildren. Local authorities will be allowed to supply cut-price milk under a Government plan to be announced in the next 10 days.

Britain first

Britain (134 points) beat the Soviet Union (128) into second place in a two-day eight-nation European Cup athletics semi-final in Helsinki.

Renault wins

Frenchman Alain Prost won the French Grand Prix at Dijon in a Renault. Britain's John Watson was second in a McLaren and Brazilian Nelson Piquet third in a Brabham.

Paisley invited

The Rev Ian Paisley has been invited to the Royal Wedding. The North Antrim MP leads a Westminster political party, the Democratic Unionist Party. He would not say if he will go.

Briefly . . .

Lady Diana Spencer remains in London preparing for her wedding as the Royal Family, including Prince Charles, starts its annual visit to Holyrood House, Edinburgh, today.

The Royal Show, at Stoneleigh, Warwicks, will be opened today by Premier Margaret Thatcher.

Drinks industry is to fund research and education connected with alcoholism. Page 5

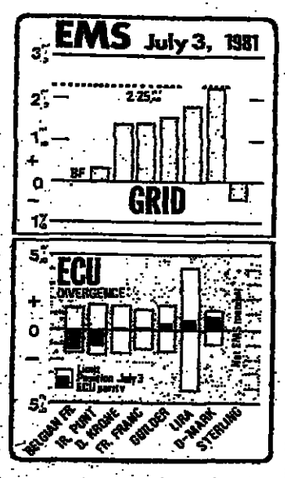
BUSINESS

Record British Steel loss expected

● **BRITISH STEEL** Corporation is expected to announce tomorrow a record loss of about £660m for the last financial year. Page 4

● **UK MOTOR** industry delegation left for Japan for what is seen as a "make or break" meeting on voluntary restraint of Japanese car shipments.

● **STOCKBROKERS** and jobbers are likely to face far more stringent Stock Exchange auditing after the recent collapse of two firms. Page 5



The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

● **CURRENCIES** showed little change in the European Monetary System last week with movements once again governed by U.S. interest rates. Each member currency showed an improvement against central rates reflecting the sharp fall in sterling which, although not a member of the EMS, is used to calculate the European Currency Unit.

The French authorities cut the money market intervention rate to 19.75 per cent from a record 22 per cent. The Belgian National Bank increased short term Treasury bill rates on four consecutive days to help support the Belgian franc. The latter was the weakest member and was trading on or around its floor level against the strongest currency, the D-mark.

● **REAGAN** Budget director said the U.S. can best help developing countries by keeping its markets open to their products instead of giving aid. Page 3

● **WASHINGTON** has acted to ease friction with its allies over the application of anti-trust laws outside U.S. borders. Page 3

● **HOOVER**, the domestic appliance manufacturer, has asked for 500 volunteers for redundancy from its Merthyr Tydfil staff of 2,900.

● **MINERS** look set to be the first group of workers to try and break through the public sector's informal single figure pay policy. Page 6

● **CHAIRMAN** and directors of Pawson, the clothing group, have sold their 8.6 per cent holding in Goodkind, fur manufacturer, and left the board. Page 14

● **WEDGWOOD**, the china and earthenware manufacturer, showed a net loss of £1.66m on a current cost basis for the year to end March. Page 14

CONTENTS

Riot that shattered Toxteth and hurt 70 police 'not racial'

BY IAN HAMILTON FAZEY IN LIVERPOOL

LAST FRIDAY evening a police patrol stopped a young black motorcyclist in Liverpool and asked him to prove ownership of his machine.

The machine was, in fact, its riders, and the tip-off that had alerted the police false, but the incident was to spark off a riot that by early yesterday morning had injured 70 policemen and left 300 sq yds of Toxteth littered with the debris of civil disorder.

For as the black motorcyclist was being questioned a crowd gathered. The police patrol was attacked, and summoned help. After a fight, the police retreated with one prisoner who was later charged with assault.

Throughout Saturday the police heard reports that there was going to be trouble, and readied themselves for it.

Then, at a quarter to midnight, they answered a call about a workman's compressor being over turned to block Liverpool's famous Upper Parliament Street, which runs from the docks past the Anglican Cathedral and through a dismal arta of inner city decline.

The roadblock, comprising three stolen overturned cars and the compressor, was at the junction with Grove Street, 200 yds from the university precinct and the conserved Georgian splendour of old Liverpool.

Throughout the night the police stayed mainly on their side of the blazing vehicles and the rioters on theirs. Stones were thrown, then dozens of petrol bombs.

Police estimated the rioters' strength at 100 at most. Two motorcyclists rode among the rioters reporting on the disposition of police forces.

The police, 120 strong, were reinforced an hour after dawn with 90 officers from Greater Manchester. At about 7 am yesterday they moved forward in line, and the rioters dispersed.

By yesterday mid-morning everyone involved was agreed on one thing. What had happened was *not* a race riot.

Indeed, talking to some of the rioters, who were cheerfully inspecting their night's handiwork, it was clear that this had been a multiracial event involving mainly teenage unemployed, for whom the riot will always remain a high spot in some drab and wretched everyday living.

Mr Dick Crawshaw, MP for Toxteth, and former deputy Speaker, who was one of the first defectors from Labour to the Social Democrats, surveyed a burnt-out Ford Capri and a demolished bus shelter and told me: "You can have deprivation, if you don't have a sense of injustice pervading everything too.

"It's one thing to be out of work. It's another to know you are never going to get a job. It's hopelessness that causes this."

Round the corner 150 yards away the wide central reservation of the formerly genteel Princes Avenue has just been given a face lift. New trees have been planted and old cast-iron street lamps installed to provide a pleasant boulevard.

The project was paid for with inner city partnership money, but has not been well received by many of the local populace, who think the money should have gone into housing or to helping people directly.

When Mr Michael Heseltine came to inaugurate the boulevard last month, the coach bearing him and his entourage was pelted with eggs and forced to retreat, scheduled stops abandoned.

Some of the weekend rioters who tore ornamental cast-iron arrows from the tops of Georgian and Victorian railings to use as missiles more damaging than eggs, felt yesterday that they had made a similar protest at "the authorities."

"I've had three jobs and been laid off from them all," one black teenager told me, "it's hopeless round here.

"All my mates are in the same position. There's nothing to do. It's been very quiet for the past two years or so, but its been simmering. It was bound to erupt."

His friends, four white teenagers, agreed. "When we heard there was going to be trouble we came," one said, "I didn't want to get involved with any

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Whitelaw to set up riot inquiry, Back Page

Moscow 'endorses' Polish leadership

BY DAVID SATTER IN MOSCOW

THE SOVIET UNION and Poland issued a joint communique last night which was seen as a Soviet endorsement of the Polish Communist Party leadership before its congress in eight days' time.

The communique, issued in Moscow and Warsaw, came shortly after Mr Andrei Gromyko, Soviet Foreign Minister, returned from two days of talks in Warsaw with Polish Communist Party leaders.

It contained a new pledge from the Polish leaders to maintain their alliance with Moscow, and said: "Poland is, was and shall be a permanent link in the socialist community."

It carried a brief reference to the Polish Party congress, called to approve political and economic reforms, and said that Polish leaders had informed Mr Gromyko of their preparation for the meeting.

However, Western diplomatic observers said that the language of the lengthy communique seemed to indicate a grudging acceptance of the congress which the Soviet Union had earlier sought to delay or postpone.

Primarily it expresses Polish support for Soviet foreign policy initiatives, but says that "certain Western circles" are trying to use the crisis in Poland to "discredit the Socialist system, as well as socialist ideals and principles."

Significantly the communique made no reference to last month's letter from the Soviet Party to the Polish leaders in which it warned that the existence of Poland as an independent state was at stake.

It referred instead to the need to defend the "gains of socialism" in Poland, and indicated that this was first of all the responsibility of the Poles. But the question of Polish national security was also "vitally important to the entire socialist community."

The passage from the Warsaw Pact Treaty was repeated which referred to relations between ruling parties being based on principles of "Marxism-Leninism and socialist internationalism," but there were no references to need for "joint defence" of socialism, which might well have indicated a danger of Soviet intervention.

Christopher Bobinski in Warsaw writes: During the two-day visit, Mr Gromyko held talks with Mr Stanislaw Kania, the Party leader, and Gen Wojciech Jaruzelski, the Prime Minister, both of whom were criticised in a Soviet letter dated June 6 for their policies of "concession and compromise" and who, it would now appear, have regained a degree of Soviet confidence.

The visit will have been greeted with a considerable sigh of relief by the Polish leadership.

The commitment contained in the communiqué, that "Poland and the USSR express their determined will to follow the road mapped out by the Helsinki conference," at least postpones the threat of Soviet intervention designed to reimpose orthodoxy on the eve of the congress.

The reminder that the existence of socialism in Poland is a condition for maintenance of the country's independence retains the necessary political pressure to contain change. Both sides bind themselves "to struggle against imperialist attempts to undertake ideological diversion against the socialist community."

Some evidence of Soviet intentions was provided by an interview nearly an hour long with Mr Georgy Arbatov, a Soviet expert on the U.S.

Mr Arbatov denounced U.S. foreign policy as irresponsible, but said that the Soviet Union "would not let itself be provoked and would continue to act responsibly in a complex world."

The Americans should behave differently, he said, if they wanted forthcoming arms talks to succeed. "But we want dialogue," he stressed.

Warning by Mexico on French oil imports

By William Chislett in Mexico City and Terry Dodsworth in Paris

MEXICO has warned France that its participation in big economic projects has been put at risk by Compagnie Francaise des Petroles' decision to stop buying Mexican oil.

The Mexican Industry Ministry said that the state-controlled oil company's oil purchases were part of the broad economic agreement signed last year in which Mexico undertook to promote French interests in return for supplying oil.

A terse, three-paragraph statement from the ministry said French participation in "national development projects" in the motor industry, nuclear energy and the underground railway system would be suspended.

The French External Relations Ministry was clearly concerned yesterday not to exacerbate the situation further, simply stating that it was following the affair closely. M Claude Cheysson, the French Foreign Minister, is to see Sr Flores de la Pena, the Mexican Ambassador, later this week.

CFP (the Total Group) announced its decision last week to suspend shipments of oil from Mexico, which this year have been running at 100,000 barrels a day, after Pemex, Mexico's State-owned oil company, decided to raise its oil prices by $2 to $32.60 a barrel. Pemex cut its oil price by $4 a barrel at the beginning of June, in response to the slack world oil

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North Sea oil output cuts likely to be imposed next year

BY RAY DAFTER, ENERGY EDITOR

The Government is likely to impose production cuts in some North Sea oilfields early next year as part of its oil depletion policy. An announcement is expected this autumn.

Within the next two months, the Energy Department, Treasury, and the Foreign Office will try to find a formula to prolong UK production close to self-sufficiency, maintain Government oil revenues and satisfy traditional overseas buyers of Britain's oil.

It is understood that the Government has thrown out two depletion options put forward by the oil companies. The UK Offshore Operators' Association, representing the companies, has told the Government that it is against the imposition of depletion controls.

The association has argued that, if controls on the flow of oil were considered necessary, the Government should postpone extraction of the 12.5 per cent of royalty oil to which it is entitled. British National Oil Corporation could be told to hold back some of its production.

The idea of leaving royalty oil in the ground has been rejected because it would substantially reduce the amount of Government revenue during the period of depletion controls. It would also put all the depletion burden on the state's shoulders.

The Government is not keen to use BNOC as a sole means of restricting output at a time when the state-owned corporation is being encouraged to act on a strictly commercial basis.

So it is likely that Mr David Howell, Energy Secretary, will ask companies in specific fields to curb output. As a result o assurances given by previo governments, oil compan know that cuts will not applied before January 1.

He said last week decisions would be take case-by-case basis. Th and shape of the ls which measures would de start of broad economic con the international position, and Br e extreme supply and demand ker market, y-ups have

The latest Ene middle of ment projections n dwt of without depletion on carrier Britain could beco oped com-stantial net exporter for the oil throughout the res figures 1980s. The country is owed producing more oil than it

As it stands, British produ tion, now running at about 90m tonnes annually, could rise as high as 125m tonnes annually between 1984 and 1986. Demand, on the other hand, is expected to be between 75m and 90m tonnes annually in the mid-1980s.

Mr Howell has already indicated that the Government wants to maintain a high level of production — close to self-sufficiency — for as long as possible. A "flexible" depletion policy was aimed at preserving security of supply in the event of further energy crises, he has said.

In trying to formulate a depletion strategy, Mr Howell has however been dogged by constant revisions to supply-and-demand forecasts.

Government wants sterling to stabilise at its present level

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

THE GOVERNMENT would like the sterling exchange rate to stabilise at about its current level, to prevent any upsurge in the inflation rate.

There is no firm target rate for the pound, nor is there any intention at present to take action to push up sterling. The policy remains one of intervening in the markets solely to smooth out fluctuations (though this can be frequent) rather than to defend any particular level of the exchange rate.

The hope is that the turbulence in sterling at the end of last week will blow itself out, as it did in early June. So far there are no real signs of official alarm.

The main change so far has been in attitudes rather than actions. Treasury ministers believe that the key to economic and political success is to maintain downward pressure on the inflation rate and they are reluctant to see any event, such as a sharp fall in sterling, which might jeopardise this objective.

Consequently there has been a shift in emphasis from professed agnosticism about an appropriate rate towards a positive preference for stability. It is clear that ministers would like the sterling dollar rate (now $1.89) to move nearer $2.00 than $1.80. This attitude will no doubt provoke criticism from industrialists keen to improve their competitive position.

The crucial test will come if there is a large and rapid fall in sterling. The Government would not then resist a rise in short-term interest rates in the markets and might even encourage such an increase. The authorities remain sceptical about intervention in the foreign exchange markets except to reinforce other moves.

A further intriguing question is whether a desire for stability will lead to renewed calls for full UK participation in the European Monetary System. The official view is that this is not a live issue but the Foreign Office has always favoured full membership and the Bank of England has become more sympathetic to stable exchange rates.

Ministers generally might therefore want to take another look at the issue, especially as the UK has just taken over the presidency of the EEC Council of Ministers. Membership of the EMS would offer a way of maintaining financial discipline.

The trigger for the shift in attitudes has been greater pessimism about inflation prospects following the recent fall in sterling. Full Treasury forecasts have not yet been completed but working papers point to higher 12-month rates of retail price inflation than the figures projected in March of 10 per cent at the end of this year and an 8 per cent rate in mid-1982.

There is apparently a lively debate among officials and ministers about the new projections with a wide range of outcomes depending on the assumptions made about wage rises in the coming pay round and about sterling. It is clear that a single figure rate even by the end of 1982 is unlikely unless sterling stabilises.

The fear is not so much that there will be a significant re-acceleration of inflation from the current 11 to 12 per cent range but that a further slowdown will be unlikely.

The problem will be emphasised later today when a sharp rise in the raw material costs of manufacturing industry in June as a result of the fall in the pound will be announced. City estimates of the possible rise range between 2 and 3½ per cent.

Tight competitive pressures and the slowdown in wage rises are still expected to be reflected in a relatively modest increase in output prices charged in the domestic market for manufactured goods.

Optimism about export prospects

BY DAVID MARSH

BRITISH industry has become more optimistic about export prospects following the recent fall in the pound, according to the latest Financial Times Business Opinion Survey published today.

The survey paints a picture of industry inching its way cautiously out of recession. Companies' orders have improved in line with a pick-up in demand compared with the highly depressed levels at the start of the year. But there is little prospects of any vigorous economic upturn.

One pessimistic note is that inflationary expectations seem to be worsening again following the sharp drop in expected levels of wage and prices increase during the past year.

The industry groups covered in the latest survey—engineering, chemical and oil companies and the shipping and transport sector—expect both wages and prices will rise by about 10 per cent and more over the next 12 months.

The FT index of general business optimism improved again in June for the fourth successive month, taking it back to the levels of the first half of 1979.

The sharp fall in the pound against the dollar has improved industry's sales prospects to the U.S. But companies are still complaining about the relatively high level of sterling against European currencies.

Reflecting the general feeling that the worst of the recession has now passed, companies expect stocks to increase and output to continue its recent improvement over the next 12 months. However, there is some concern that an upturn in inflation may trigger a renewed increase in interest rates.

Although the number of companies expecting to prune their work forces fell last month, the employment outlook remains gloomy, with industry's demand for new labour over the next 12 months likely to remain highly depressed.

Details, Page 6

TENDERS MUST BE LODGED AT THE BANK OF ENGLAND, NEW ISSUES (X), WATLING STREET, LONDON, EC4M 9AA NOT LATER THAN 10.00 A.M. ON WEDNESDAY, 8TH JULY 1981, OR AT ANY OF THE BRANCHES OF THE BANK OF ENGLAND OR AT THE GLASGOW AGENCY OF THE BANK OF ENGLAND NOT LATER THAN 3.30 P.M. ON TUESDAY, 7TH JULY 1981. ENVELOPES CONTAINING TENDERS SHOULD BE MARKED " INDEX-LINKED TREASURY TENDER ".

ISSUE BY TENDER OF £1,000,000,000

2 per cent Index-Linked Treasury Stock, 2006

PAYABLE AS FOLLOWS:

Deposit with tender	£30.00 per cent
On Friday, 14th August 1981	£30.00 per cent
On Friday, 11th September 1981	Balance of purchase money

INTEREST PAYABLE HALF-YEARLY ON 19TH JANUARY AND 19TH JULY

1. The Stock is an investment falling within Part II of the First Schedule to the Trustee Investments Act 1961. Application has been made to the Council of The Stock Exchange for the Stock to be admitted to the Official List.

2. THE GOVERNOR AND COMPANY OF THE BANK OF ENGLAND are authorised to receive tenders for the above Stock.

3. The principal of and interest on the Stock will be a charge on the National Loans Fund, with recourse to the Consolidated Fund of the United Kingdom.

4. The Stock will be registered at the Bank of England and will be transferable, in multiples of one new penny, by instrument in writing in accordance with the Stock Transfer Act 1963. Transfers will be free of stamp duty.

5. Ownership of the Stock will be confined to persons who are Eligible Holders, as defined below. The Bank of England will consider tenders for the Stock, in accordance with the procedures described below, only from persons by whom declarations have been made that they are Eligible Holders or are tendering for the Stock on behalf of an Eligible Holder. In addition, subject to the exceptions laid down in paragraph 9, a statutory declaration in the appropriate prescribed form covering the matters specified in that paragraph will be required on each occasion when, on surrender of a letter of allotment or presentation of an instrument of transfer for registration, the opening of a new account in the stock register is involved, or a nominee acquires Stock for addition to an existing account on behalf of an Eligible Holder for whom that nominee is not already holding Stock on the same account. The Bank of England will decline to register any holding of the Stock until furnished with a statutory declaration in the appropriate prescribed form, where such a declaration is required in accordance with this prospectus.

6. Any holding of the Stock must be registered in the name of an Eligible Holder in his own right, or in the name of a nominee (as defined in paragraph 8(3) below) acting on behalf of an Eligible Holder.

7. On the first occasion on which Stock acquired by or on behalf of an Eligible Holder is to be registered directly in the name of a person specified in paragraph 8(1)(e), that Eligible Holder will be required, prior to such registration taking effect, to furnish a statutory declaration to the Bank of England covering the matters specified in paragraph 9, unless such a declaration has previously been furnished by that Eligible Holder in respect of Stock previously acquired and still standing in his own name in the register.

8. For the purposes of this prospectus:—

(1) " Eligible Holder " means:—

(a) The trustee or trustees of any pension scheme or fund which is either:—

(i) a scheme of which all or some part is treated by the Inland Revenue as an " exempt approved scheme " for the purposes of Section 21 of the Finance Act 1970 and where not less than 95 per cent of the income therefrom is treated by the Inland Revenue as being exempt for tax purposes; or

(ii) a scheme in respect of which application has been made to the Inland Revenue for approval and for treatment of such scheme as an " exempt approved scheme " for the purposes of Section 21 of the Finance Act 1970, and such application is currently being considered; and the trustee or trustees reasonably expect that when such treatment is given not less than 95 per cent of the income of such scheme will be treated by the Inland Revenue as being exempt for tax purposes; or

(iii) a retirement annuity trust scheme approved under the provisions of Sections 226(5) or 226A(6) of the Income and Corporation Taxes Act 1970; or

(iv) a fund mentioned in Section 211(2) of the Income and Corporation Taxes Act 1970.

(b) A company authorised to carry on in the United Kingdom insurance business of a class which includes pension business, provided that:—

(i) the Stock is held against, and applied solely towards meeting, pension business liabilities; and

(ii) the market value of the Stock so held, when aggregated with the market value of any holding of any other Index-Linked Government Stock which has been or may be issued subject to the same or similar restrictions, does not at any time exceed the value at that time of pension business liabilities, net of reinsurance, as estimated by the company's appointed actuary on assumptions that would be appropriate for a valuation of the long-term business liabilities under Section 14 of the Insurance Companies Act 1974.

(c) The trustee or trustees of a registered friendly society as defined in Section 7(1)(a) of the Friendly Societies Act 1974, or of a branch thereof registered under that Act, which carries on pension business, provided that:—

(i) the Stock is held against, and applied solely towards meeting, pension business liabilities; and

(ii) the market value of the Stock so held, when aggregated with the market value of any holding of any other Index-Linked Government Stock which has been or may be issued subject to the same or similar restrictions, does not at any time exceed the value at that time of pension business liabilities, net of reinsurance, as estimated by the appointed actuary of the society or branch on assumptions that would be appropriate for a valuation of the liabilities of the society or branch under Section 41 of the Friendly Societies Act 1974.

(d) Any person carrying on business as a recognised stock jobber on The Stock Exchange, provided that the Stock is held as trading stock in the ordinary course of his business as a stock jobber.

(e) Any person, other than one specified in (d) above, to whom certifiable balance facilities have been made available in respect of the Stock by the Bank of England, provided that the Stock is held by that person as nominee for an Eligible Holder specified in (a) or (b) above.

(f) The Governor and Company of the Bank of England, Issue Department.

(g) The person for the time being holding of Senior Broker to the National Debt Commissioners.

(h) The National Debt Commissioners for public funds under their management.

(2) The restrictions contained in sub-paragraph (i) of paragraphs 8(1)(b) and (c) shall cease to apply in the event of the company entering into liquidation (other than provisional liquidation) for whatever reason or in the event of the commencement of a winding-up by whatever means of the society or branch, and shall be suspended for such period as shall elapse between the levying of any distress or execution (or the taking of any similar step) by a judgment creditor against the whole or any part of the assets of the company or society or branch in respect of any unsatisfied judgment debt and the satisfaction or discharge of the debt in respect of which the distress or execution was levied (or other similar step was taken).

(3) For the purposes of this prospectus, " pension business " means the issuing of insurance contracts the premiums under which fall within Section 323(4)(a), (aa) or (b) of the Income and Corporation Taxes Act 1970; " market value " means the value of the Stock at the average of the two prices shown in the quotation for the Stock in The Stock Exchange Daily Official List for the relevant date or, if no Official List has been published for that day, for the most recent day prior to that day for which the Official List has been published; and the expression " nominee " includes a custodian trustee (within the meaning of the Public Trustee Act 1906) and any other person who holds or is to hold Stock on behalf of an Eligible Holder in a fiduciary or representative capacity whether as a nominee or otherwise.

(4) A reference to any enactment is to be construed as a reference to that enactment as subsequently modified or re-enacted.

9. Eligible Holders specified in paragraphs 8(1)(d), (e), (f), (g) and (h) will not be required to furnish statutory declarations for the purposes of paragraph 5. Statutory declarations required to be furnished by all other Eligible Holders or by nominees will be in such form as the Bank of England shall from time to time prescribe, to the following effect:—

(1) A statutory declaration by an Eligible Holder who is to become the registered holder of any of the Stock in his own right, or on whose behalf any of the Stock is to be held by a person specified in paragraph 8(1)(e), will be to the effect that the Eligible Holder is an Eligible Holder, is not acting as the nominee of any other person, and has not created and will not create in favour of any other person any rights in respect of that Stock by way of encumbrance or by way of transfer of beneficial ownership not involving a change in the registered holder.

(2) A statutory declaration by a nominee who is to become the registered holder of any of the Stock will be to the effect that such nominee is acting on behalf of an Eligible Holder and not otherwise, and will not create or knowingly permit to be created in favour of any person, other than an Eligible Holder on whose behalf Stock is then held by the nominee on the same account in the Stock register, any rights in respect of that Stock by way of encumbrance or by way of transfer of beneficial ownership not involving a change in the registered holder.

Statutory declarations will also contain undertakings relevant to the provisions of paragraphs 10, 11 and 12.

10. The Bank of England reserve the right at any time to require the registered holder of any of the Stock, or a person on whose behalf any of the Stock is held, to furnish such evidence (whether by statutory declaration or otherwise) as may be reasonably required, to the effect that the provisions laid down in paragraph 9 have been and are continuing to be observed in relation to the Stock registered in his name or held on his behalf, or to such other effect in relation to a holding of the Stock as the Bank of England may reasonably require. In the event of any failure to provide such evidence to the Bank of England within one month of the request therefor, the Bank of England as agent of Her Majesty's Treasury shall be entitled, as a term of issue of the Stock which shall be binding on all persons by whom or on whose behalf any of the Stock is held, to require the surrender of the relevant certificate of title (if any) and to sell the Stock in relation to which the evidence was required in the market or to the Governor and Company of the Bank of England, Issue Department, and to confer a good title on the purchaser of such Stock; and the Bank of England shall be under no liability whatsoever other than a liability to account to the registered holder for whichever is the lesser of (i) the proceeds realised on such sale or (ii) the market value of the Stock on the date on which such evidence was first required by the Bank of England, in each case less expenses properly incurred in connection with such sale by the Bank of England.

11. If any statutory declaration made under the foregoing provisions shall be proved to have been untrue at the time it was made, either by a conviction of the declarant under the Perjury Act 1911 or otherwise to the satisfaction of the Bank of England, the Bank of England shall be entitled, as a term of issue of the Stock which shall be binding on all persons by whom or on whose behalf any of the Stock is held, to require the surrender of the relevant certificate of title (if any) and to sell the Stock covered by such statutory declaration in accordance with the provisions of paragraph 10; and the Bank of England shall be under no liability whatsoever other than a liability to account to the registered holder for whichever is the lesser of (i) the proceeds realised on such sale or (ii) the market value of the Stock on the date on which the untrue statutory declaration was made, in each case less expenses properly incurred in connection with such sale by the Bank of England.

12. If at any time any person in whose name or on whose behalf Stock is held ceases to be an Eligible Holder by virtue of ceasing to satisfy in whole or in part the conditions laid down in paragraph 8, that person shall, or shall procure that any nominee who is registered as the holder of any Stock on behalf of such person shall, notify the Bank of England forthwith; and such person (or, as the case may be, such nominee) may be required by the Bank of England by notice in writing to dispose of all or part of the relevant Stock within one month of such notification. In the event that there shall be failure to comply with the requirements of such notice, or if it should come to the attention of the Bank of England other than by such notification that the relevant Eligible Holder has ceased to be eligible, the Bank of England shall be entitled, as a term of issue of the Stock which shall be binding on all persons by whom or on whose behalf any of the Stock is held, to require the surrender of the relevant certificate of title (if any) and to sell the Stock in accordance with the provisions of paragraph 10; and the Bank of England shall be under no liability whatsoever other than a liability to account to the registered holder for which ever is the lesser of (i) the proceeds realised on such sale or (ii) the market value of the Stock on the date on which the relevant Eligible Holder ceased to be eligible, in each case less expenses properly incurred in connection with such sale by the Bank of England.

13. The right is reserved to Her Majesty's Treasury from time to time to extend the definition of Eligible Holder to include any other class or category of persons who would not be included in such definition at the date of this prospectus. Any such extension will be promulgated by means of a supplement to this prospectus. The right is reserved to the Bank of England from time to time to vary the arrangements contained in this prospectus concerning the furnishing of statutory declarations, as regards the persons by whom and the terms on which such statutory declarations are to be given.

14. If not previously redeemed under the provisions of paragraph 23, the Stock will be repaid on 19th July 2006. The value of the principal on repayment will be related, subject to the terms of this prospectus, to the movement, during the life of the Stock, of the United Kingdom General Index of Retail Prices maintained by the Department of Employment, or any Index replacing that Index, such movement being indicated by the Index figure issued monthly and subsequently published in the London, Edinburgh and Belfast Gazettes.

15. For the purposes of this prospectus, the Index figure applicable to any month will be the Index figure issued seven months prior to the relevant month and relating to the month before that prior month; " month " means calendar month; and the Index ratio applicable to any month will be equal to the Index figure applicable to that month divided by the Index figure applicable to July 1981.

16. The amount due on repayment, per £100 nominal of Stock, will be £100 multiplied by the Index ratio applicable to the month in which repayment takes place. This amount, expressed in pounds sterling to two places of demicals rounded to the nearest figure below, will be announced by the Bank of England not later than the business day immediately preceding the date of the penultimate interest payment.

17. Interest will be payable half-yearly on 19th January and 19th July. Income tax will be deducted from payments of more than £5 per annum. Interest warrants will be transmitted by post.

18. The first interest payment will be made on 19th January 1982 at the rate of £0.92 per £100 nominal of Stock.

19. Each subsequent half-yearly interest payment will be at a rate, per £100 nominal of Stock, of £1 multiplied by the Index ratio applicable to the month in which the payment falls due.

20. The rate of interest for each interest payment other than the first, expressed as a percentage in pounds sterling to two places of decimals rounded to the nearest figure below, will be announced by the Bank of England not later than the business day immediately preceding the date of the previous interest payment.

21. If the Index is revised to a new base after the Stock is issued, it will be necessary, for the purposes of the preceding paragraphs, to calculate and use a notional Index figure in substitution for the Index figure applicable to the month in which repayment takes place and/or an interest payment falls due (" the month of payment "). This notional Index figure will be calculated by multiplying the actual Index figure applicable to the month of payment by the Index figure on the old base for the month on which the revised Index is based and dividing the product by the new base figure for the same month. This procedure will be used for each occasion on which a revision is made during the life of the Stock.

22. If the Index is not published for a month for which it is relevant for the purposes of this prospectus, the Bank of England, after appropriate consultation with the relevant Government Department, will publish a substitute Index figure which shall be an estimate of the Index figure which would have been applicable to the month of payment, and such substitute Index figure, shall be used for all purposes for which the actual Index figure would have been relevant. The calculation by the Bank of England of the amounts of principal and/or interest payable on the basis of a substitute Index figure shall be conclusive and binding upon all stockholders. No subsequent adjustment to such amounts will be made in the event of subsequent publication of the Index figure which would have been applicable to the month of payment.

23. If any change should be made to the coverage or the basic calculation of the Index which, in the opinion of the Bank of England, constitutes a fundamental change in the Index which would be materially detrimental to the interests of stockholders, Her Majesty's Treasury will publish a notice in the London, Edinburgh and Belfast Gazettes immediately following the announcement by the relevant Government Department of the change, informing stockholders and offering them the right to require Her Majesty's Treasury to redeem their stock in advance of the revised Index becoming effective for the purposes of this prospectus. Repayment to stockholders who exercise this right will be effected, on a date to be chosen by Her Majesty's Treasury, not later than six months from the month of publication of the revised Index. The amount of principal due on repayment and of any interest which has accrued will be calculated on the basis of the Index ratio applicable to the month in which repayment takes place. A notice setting out the administrative arrangements will be sent to stockholders at their registered address by the Bank of England at the appropriate time.

24. Tenders must be lodged at the Bank of England, New Issues (X), Watling Street, London EC4M 9AA not later than 10.00 A.M. ON WEDNESDAY, 8TH JULY 1981, or at any of the Branches of the Bank of England or at the Glasgow Agency of the Bank of England not later than 3.30 P.M. ON TUESDAY, 7TH JULY 1981. Each tender must be for one amount and at one price which is a multiple of 25p. TENDERS LODGED WITHOUT A PRICE BEING STATED WILL BE REJECTED.

25. A separate cheque representing a deposit at the rate of £30.00 for every £100 of the nominal amount of Stock tendered for must accompany each tender; cheques must be drawn on a bank in, and be payable in, the United Kingdom, the Channel Islands or the Isle of Man. Envelopes containing tenders should be marked " Index-Linked Treasury Tender."

26. Tenders must be for a minimum of £5,000 nominal of Stock and for multiples of Stock as follows:—

Amount of Stock tendered for	*Multiple*
£5,000 — £50,000	£5,000
£50,000 or greater	£25,000

27. Her Majesty's Treasury reserve the right to reject any tender or to allot a less amount of Stock than that tendered for. Valid tenders will be ranked in descending order of price and allotments will be made to tenderers whose tenders are at or above the lowest price at which Her Majesty's Treasury decide that any tender should be accepted (the allotment price). All allotments will be made at the allotment price and tenders which are accepted and which are made at prices above the allotment price will be allotted in full. Any balance of Stock not allotted to tenderers will be allotted at the allotment price to the Governor and Company of the Bank of England, Issue Department.

28. Letters of allotment in respect of Stock allotted, being the only form in which the Stock may be transferred prior to registration, will be despatched by post at the risk of the tenderer, but the despatch of any letter of allotment, and any refund of the balance of the amount paid as deposit, may at the discretion of the Bank of England be withheld until the tenderer's cheque has been paid. In the event of such withholding, the tenderer will be notified by letter by the Bank of England of the acceptance of his tender and of the amount of Stock allocated to him, subject in each case to payment of his cheque, but such notification will confer no right on the tenderer to transfer the Stock so allocated.

29. In the event of partial allotment, the balance of the amount paid as deposit will, when refunded, be remitted by cheque despatched by post at the risk of the tenderer; if no allotment is made the amount paid as deposit will be returned likewise. Payment in full may be made at any time after allotment but no discount will be allowed on such payment. Interest may be charged on a day-to-day basis on any overdue amount which may accepted at a rate equal to the London Inter-Bank Offered Rate for seven days' money plus 1 per cent per annum. Such rate will be determined by the Bank of England by reference to market quotations, on the due date for the relevant payment, of the London Inter-Bank Offered Rate for seven-days' money obtained from such source or sources as the Bank of England shall consider appropriate. Default in due payment of any amount in respect of the Stock will render the allotment of such Stock liable to cancellation and any amount previously paid liable to forfeiture.

30. Letters of allotment may be split into denominations of multiples of £1,000 on written request received by the Bank of England, New Issues, Watling Street, London, EC4M 9AA, or by any of the Branches of the Bank of England, on any date not later than 9th September 1981. Such requests must be signed and must be accompanied by the letters of allotment (but a letter cannot be split if any instalment payment is overdue).

31. Letters of allotment must be surrendered for registration, accompanied by a completed registration form and, where required, a statutory declaration, when the balance of the purchase money is paid, unless payment in full has been made before the due date, in which case they must be surrendered for registration not later than 11th September 1981.

32. Tender forms and copies of this prospectus may be obtained at the Bank of England, New Issues, Watling Street, London, EC4M 9AA, or at any of the Branches of the Bank of England, or at the Glasgow Agency of the Bank of England; at the Bank of Ireland, P.O. Box 13, Donegall Place, Belfast, BT1 5BX; at the Bank of Ireland, 2, Moorgate, London, EC2R 6AN; or at any office of The Stock Exchange in the United Kingdom. Forms of statutory declaration will be made available to successful tenderers with their letters of allotment.

BANK OF ENGLAND
LONDON
3rd July 1981

THIS FORM MAY BE USED

TENDER FORM

This form must be lodged at the Bank of England, New Issues (X), Watling Street, London, EC4M 9AA not later than 10.00 A.M. ON WEDNESDAY, 8th JULY 1981, or at any of the Branches of the Bank of England or at the Glasgow Agency of the Bank of England not later than 3.30 P.M. ON TUESDAY, 7th JULY 1981. Envelopes containing tenders should be marked " Index-Linked Treasury Tender ".

ISSUE BY TENDER OF £1,000,000,000

2 per cent Index-Linked Treasury Stock, 2006

TO THE GOVERNOR AND COMPANY OF THE BANK OF ENGLAND

I/We tender in accordance with the terms of the prospectus dated 3rd July 1981 as follows:

Amount of above-mentioned Stock tendered for, being a minimum of £5,000 and in a multiple as follows:—

Amount of Stock tendered for	*Multiple*
£5,000—£50,000	£5,000
£50,000 or greater	£25,000

1. NOMINAL AMOUNT OF STOCK £

2. AMOUNT OF DEPOSIT (a)

Amount of deposit enclosed, being £30.00 for every £100 of the *nominal* amount of Stock tendered for (shown in Box 1 above):— £

3. TENDER PRICE (b)

The price tendered per £100 Stock, being a multiple of 25p *(tenders lodged without a price being stated will be rejected)*:— £ : p

I/We declare that I am/we are an Eligible Holder as defined in paragraph 8 of the prospectus dated 3rd July 1981, or am/are tendering for Stock on behalf of an Eligible Holder as so defined.

I/We hereby engage to pay the instalments as they shall become due on any allotment that may be made in respect of this tender, as provided by the said prospectus.

I/We request that any letter of allotment in respect of Stock allotted to me/us be sent by post at my/our risk to me/us at the address shown below.

SIGNATURE .....

of, or on behalf of, tenderer

.....July 1981

PLEASE USE BLOCK LETTERS

FULL NAME(S)

FULL POSTAL ADDRESS:—

POST-TOWN	COUNTY	POSTCODE

STAMP OF LODGING AGENT (IF ANY)

a A separate cheque must accompany each tender. Cheques should be made payable to " Bank of England " and crossed " Treasury Stock ". Cheques must be drawn on a bank in, and be payable in, the United Kingdom, the Channel Islands or the Isle of Man.

b Each tender must be for one amount and at one price which is a multiple of 25p.

OVERSEAS NEWS

Moscow 'ready to scrap missiles'

BY ROGER BOYES IN BONN

THE SOVIET UNION is prepared to make serious concessions in arms talks with the United States and will be ready to scrap many of its medium-range SS-20 missiles if the West drops its plan to modernise its theatre nuclear forces in Europe.

This is the view brought back from Moscow by Herr Willy Brandt, chairman of West Germany's Social Democratic Party and former Chancellor, after talks with Mr Leonid Brezhnev, the Soviet leader. But Herr Brandt's trip has met with some scepticism from officials in Bonn and with a note of caution from Herr Hans Deitrich Genscher, the Foreign Minister.

According to Herr Brandt, the Soviet Union has softened its position on two key points. As soon as negotiations begin with the U.S., the Soviet Union would stop any further deployment of SS-20 missiles, most of which are targeted on western Europe. This has been suggested before by Moscow but was rejected by the West because it would have frozen efforts to secure a balance in medium-range weapons. The Russians are now, Herr Brandt says, " placing no conditions on our production nor on the preparatory excavation and construction work needed to set up the rockets."

Secondly, Moscow showed great interest in the so-called zero option—the willingness to scrap a large number of SS-20 missiles in return for the non-stationing of the new Cruise missiles and Pershing 2s.

Herr Brandt: message received with scepticism

West German officials are sceptical about this softening and not a little embarrassed by Herr Brandt's zeal. The zero option, though theoretically desirable, may create more problems than it solves —both technical (how to verify the scrapping of the missiles) and political (how to convince the Reagan Administration that this is not the first step towards a neutral or a nuclear-free Germany).

But Bonn's fundamental anxiety is that the Brandt visit makes it seem as if Moscow, despite its missile build-up, is more willing than Washington to enter arms negotiations. Such an impression can only aggravate relations between Bonn and Washington and strengthen the growing anti-missile movement in Germany.

Herr Genscher, in an interview at the weekend, was at pains to shift the emphasis of Herr Brandt's trip. He stressed that it was first up to the Soviet Union to reduce its medium-range superiority in Europe.

AP reports from Rome: The Italian Socialist Party says the Soviet Communist Party has asked West European Socialist and Social Democrat parties to put pressure on the U.S. to start talks quickly on limiting medium-range nuclear missiles in Europe.

Lebanon's right-wing Christians refuse to sever Israel links

BY IHSAN HIJAZI IN BEIRUT AND LOUIS FARES IN DAMASCUS

LEBANON'S right-wing Christians, led by the Phalange Party, yesterday refused to renounce their links with Israel, so blocking attempts by the Arab League Committee to end the Lebanese crisis.

The committee ended its talks in Lebanon abruptly yesterday after only two sessions lasting five hours and will not reconvene for three weeks.

The failure of the talks makes it likely that the Syrian army will now act more firmly against the Christian militias.

The committee, consisting of the Foreign Ministers of Lebanon, Saudi Arabia, Kuwait and Syria was meeting over the weekend at the mountain resort of Beiteddine about 18 miles south of Beirut.

The Phalange leader, Mr Pierre Gemayel, said his party would only be prepared to sign a statement of national reconciliation rejecting ties with Israel on the strictest conditions.

These include a timetable for the withdrawal of the Syrian army from Lebanon, its positions to be taken over by the Lebanese regular army, and curbs on Palestinian guerrillas.

The Syrian Government has reacted strongly to the Christian decision. Syrian officials say that a decision has already been taken on " a radical and decisive solution " to the problem of the Phalange.

In Damascus, a senior aide of President Hafez al-Hassad was quoted by diplomats as saying that crushing the Phalangists in Lebanon " will not impose a heavy military burden on us."

Meanwhile seven people were killed and 53 wounded in an explosion in a munition dump in predominantly Moslem west Beirut late on Saturday. The blast started a huge fire in an eight-floor building. The dump belonged to the Organisation of Communist Action in Lebanon which said the explosion was the work of saboteurs.

Execution threat to Bani-Sadr

By Terry Povey in Tehran

IRAN'S fugitive ex-President, Mr Abolhassan Bani-Sadr, faces execution if he is caught, the head of Tehran's revolutionary court declared yesterday. " If Mr Bani-Sadr does not repent and is arrested then he deserves not one execution but many," Ayatollah Mohammed Gilani said.

" His biggest offence was deceiving the leader of the revolution," the judge claimed. Next on the list of charges came " having changed the direction of the revolution and putting it under the control of the superpowers, which is a criminal offence. Mr Bani-Sadr should be " executed several times " because he had committed treason against every member of the nation, the Ayatollah added.

At the same Press conference in the capital's Evin prison Mr Assadollah Lajervardi, Tehran's revolutionary prosecutor, gave details of continuing arrests of opponents of the regime. One group of 90 people were detained recently in a raid on a People's Mojahedin centre he claimed. An official indicated that 15 of them would be executed.

On Saturday two other centres of the People's Mojahedin in Tehran were discovered by Revolutionary Guards. In a shoot-out two of the dissidents were killed and three guards were injured. The Revolutionary Guards used grenades and tear gas.

Arrests were also reported in the capital's industrial areas on Saturday. One worker spoke of seeing three large coaches taking away those detained. According to Mr Lajervardi these people were arrested for showing pleasure at the result of the explosion last week in which 74 fundamentalist leaders died.

Over the past two days 18 more executions have been reported.

Begin watch on Soviet landings

BY DAVID LENNON IN TEL AVIV

ISRAEL will be following closely the joint Soviet-Syrian amphibious exercises being held on the coast of Syria this week. The manoeuvres which were expected to start yesterday are seen in Tel Aviv as a warning to Israel not to take any military action against Syrian anti-aircraft missiles in Lebanon.

The Cabinet was expected yesterday to discuss this first-ever practice landing by Soviet troops in the Middle East, but after the regular Sunday meeting the Cabinet Secretary denied that the subject had been debated.

Mr Mordechai Zippori, Deputy Minister of Defence, said yesterday that the exercise could be the Soviet Union's way of telling Israel it was standing by Syria following Israeli threats to destroy the missile batteries if they were not withdrawn voluntarily.

The threats were renewed yesterday when Mr Menahem Begin, the Prime Minister, told the Cabinet that Israel would not wait for ever for the diplomatic effort to resolve the missile crisis. Mr Philip Habib, the U.S. mediator, is due back in the region this week.

Mr Zippori said it was also likely that the manoeuvres were a Soviet reply to the joint exercise in Egypt last year involving Egyptian and U.S. forces. Other officials said the exercise had little military importance. They saw it primarily as a political statement directed at those Arab states which support U.S. strategy in the region.

Russian admiral in Belgrade

Admiral Sergei Gorshkov, Commander in Chief of the Soviet Navy and architect of the post-war expansion of the Soviet deep water fleet, has arrived in Belgrade for what Tanjug, the official Yugoslav news agency described as " an official, friendly visit." Anthony Robinson reports.

The Soviet Union has a limited naval repair agreement with Yugoslavia under which one warship and one naval auxiliary are allowed access at any one time to Yugoslav repair facilities at Tivat in the Gulf of Kotor. But the granting of full naval base facilities in Yugoslavia has been a long-standing objective of Soviet foreign policy. Such requests have been rejected in the past by Yugoslavia, which was expelled from the Eastern bloc in 1948.

Since the death of President Tito, however, Yugoslav trade with the Soviet Union has more than doubled, spearheaded by increased Soviet oil shipments. While there have been no indications that the Russians have been using increased economic leverage to secure concessions, Admiral Gorshkov's visit is a reminder of the Soviet Union's interest in Yugoslavia's long Mediterranean coastline.

Vietnamese changes

Truong Chinh, the second most senior official in the Communist Party of Vietnam, has been named head of a powerful new presidency in a reorganisation of Government, our Bangkok correspondent reports. The leadership changes result from the adoption of a Soviet-style constitution last year and signal the ascendancy of Chinh, who is 73, over Pham Van Dong, who is reappointed Prime Minister with reduced responsibilities.

Van Agt backed

Dutch Christian Democrats have upheld their nomination of the party leader, Mr Dries van Agt, as Prime Minister, dimming prospects [illegible] an early breakthrough in [illegible]ition talks, reuter reports [illegible] The Hague.

Israeli Premier confident he will form coalition

BY OUR TEL AVIV CORRESPONDENT

MR MENAHEM BEGIN, the Israeli Prime Minister, told the Cabinet yesterday that there was no doubt that he would be asked by the President to form the next Government and that he should be able to complete coalition discussions within 10 days.

While the final results of last Tuesday's election are not expected before the end of the week, unofficial results showed the ruling Likud bloc as having a definite 47 and possibly 48 seats in the Knesset, which would give it a one-seat lead over the final tally for the Opposition Labour Party.

Whether the Likud ends up with one more seat than Labour apparently depends on the redistribution of votes cast for parties which did not gain a place in the Knesset.

Anthony McDermott adds from Cairo: Mr Begin is due to meet President Anwar Sadat at the end of the month.

Such a meeting, were it to take place, would concentrate on Israel's final withdrawal from Sinai by the end of next April, details of a peace-keeping force for the withdrawal area and the stalled talks on autonomy for the Palestinians in the West Bank and Gaza Strip.

Thousands evacuated

Thousands of people were evacuated yesterday when monsoon rains and flooding rivers swamped additional districts in northern and north-eastern India, AP reports from Delhi. In Bangladesh, the districts of Sylhet and Mymensingh were reported to be flooded.

Japan's trade outlook brightens

BY RICHARD C. HANSON IN TOKYO

BRISK EXPORTS, coupled with sluggish imports, will push Japan's current account back into equilibrium this year, according to private forecasts. At least two reports published recently predict a sharp turn-around from last fiscal year's (ended March 31) U.S.$7.3bn (£3.8bn) deficit to a surplus. The official forecast for the year presumes a U.S.$6bn deficit.

Nomura Research Institute is the most confident of the private forecasters so far, predicting a substantial surplus of U.S.$4.8bn (for the year which ends March 31, 1982). The Japan Economic Research Centre says the surplus will be a more modest U.S.$1.6bn.

The latter is forecasting a further widening of the huge deficits which the European Community and the U.S. run with Japan. If present trends continue, the EEC deficit will increase to U.S.$11.2bn from U.S.$9.7bn last year. The U.S. deficit will increase to U.S.$10bn from U.S.$7.5bn, according to the research centre.

Other forecasts of the current account show either small deficits or a balance.

The reports come as no surprise considering Japan's trade performance in recent months. On a seasonally adjusted basis, the current account has been in rough equilibrium since the start of the year.

Forecasts for exports, however, are being revised upwards, partly because of the weakening of the yen. This has restored a degree of export competitiveness to a broad range of export items.

On the other hand, Japanese imports are expected to remain sluggish as a result of slow economic growth.

Bonn call for public spending cut

BY OUR BONN CORRESPONDENT

WEST GERMANY'S panel of economic advisers has handed a special report to the Government which is believed to urge Bonn to cut back its public sector spending and borrowing.

The experts—known as the five wise men—normally confine themselves to preparing an annual forecast of German economic development, commissioned by the Government to act as a check on Bonn's own predictions. But they can also act on their own initiative if they feel that an urgent shift in policy is necessary.

The panel's recommendations will not be released until next week, after they have been discussed with Ministers, but a few key elements have been leaked. Reduction in public spending seems to play an important role in the report, though the panel also points out, that too rapid a cut would harm growth prospects even further.

It is understood that there is disagreement within the panel over the effects of last winter's wage round in which settlements of around 5 per cent in most of manufacturing industry were recorded. It is understood that a majority of the panel has criticised the inflationary consequences of the wage round but at least one member demurred.

The report comes shortly before both the Western economic summit in Ottawa this month and the Bonn government's deliberations on what cuts should be made in the 1982 budget. The panel clearly hopes that its report will influence the budget discussions.

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THIRD WORLD AID DILEMMA

U.S. puts stress on boosting trade

BY DAVID BUCHAN IN WASHINGTON

THE U.S. can best help the Third World by keeping its markets open to labour-intensive products from developing countries and its economy expanding, instead of giving aid, according to Mr David Stockman, the Reagan Budget director.

The Administration's decision to let lapse on June 30 its four-year-old negotiated import ceilings on shoe imports from Taiwan and South Korea was intended to be a signal of this policy, he said.

The Third World's export potential to the U.S. far outweighs the "relatively modest" capital flows from developed countries, both in official Government aid and commercial bank credit. The conservative-minded budget director made clear he would use his influence to make the U.S. Government aid contribution more modest still.

Speaking to reporters last week, Mr Stockman was publicising his "better-trade-than-aid" outlook for the first time since he lost an Administration battle in January to cut U.S. official aid to institutions like the World Bank by half. But Mr Stockman, who wields more influence than ever because of his U.S. budget victories on Capitol Hill, made obvious his enthusiasm for paring U.S. foreign aid was undimmed.

Saying the U.S. would stick to its international commitments such as its $3.2bn contribution to the World Bank's soft loan fund, the cabinet officer warned that the Reagan Administration will "take a hard look" at any further U.S. replenishment of multinational soft loan funds.

He also believed that rich countries like the U.S. could get away with backing institutions like the World Bank by means of "callable" rather than "paid-in" capital contributions. Agencies like the World Bank had sufficient standing to raise commercial money, with industrialised countries just standing by

Officials at the World Bank, headed since July 1 by Mr. A. W. Clausen, formerly of Bank of America, have repeatedly sought to point out the U.S. self-interest in the agency's operations — one-third of all U.S. exports go to the Third World, U.S. companies win nearly one-fifth of all World Bank project contracts, and so on. But with the Reagan Administration, these arguments have fallen on deafer ears than ever.

Inflation seen eroding benefits of credit

BY BRIJ KHINDARIA IN GENEVA

Commercial credits to developing countries should reach about $74bn in 1990 but in real terms after adjustment for inflation the figure will represent less than the $45bn received by them in 1980.

The stagnation in real terms of lending to these countries, especially the poorest among them, will arise because of continuing concern among banks about the credit worthiness of many borrower nations with worsening balance of payments problems, political instability and problems of debt management.

Mrs Shirley Boskey, a director at the World Bank, told the UN Economic and Social Council (Ecosoc) in Geneva that, to achieve economic growth rates averaging about 2 per cent a year, developing countries must receive commercial loans totalling at least $117bn by 1990. Lending would, therefore, have to increase 10 per cent yearly. Such lending grew 20 per cent a year in the 1970s from $7bn in 1970 to $45bn in 1980.

Official aid would have to reach $66bn, including $51bn from industrialised countries and $15bn from oil exporters. Ecosoc is the UN body which oversees activities of all UN technical agencies.

A slowdown in lending would further erode economic recovery. A year ago the World Bank estimated that industrialised economies would grow at up to 3.5 per cent a year, but it has since scaled down the forecast to 3.1 per cent a year. The poorest developing countries could grow at as little as 0.7 per cent a year while the wealthier ones might manage annual rates of only 2.1 per cent.

ODI warns on electronics imports controls

BY JASON CRISP

EUROPEAN countries are warned against trying to defend their electronics industries through trade controls in a report published today by the Overseas Development Institute in London.

It notes that Britain, along with many other advanced countries, is squeezed on one hand by Japan and the U.S. which lead in electronics technology, and on the other by low labour costs of electronics assembly work in the Far East.

The report says there should be a "positive adjustment" to international competition such as by adapting and upgrading products.

But it warns of Government thinking which interprets such adjustments to mean, investment supported by trade protection, so that existing products can be made more capital intensive and less vulnerable to incursions by exporters with low labour costs.

The report says there is likely to be a permanent subsidisation and protection of an industry which is no longer competitive "If governments are to intervene there seems more future in actively promoting or subsidising new rather than established products, as appears to happen, for example, in Japan."

The report, which examined how the British electronics industry has fared in the face of competition from newly industrialised countries (NICs), warns of the dangers of just following U.S. and Japanese innovation.

West European countries it describes as "early technological followers" with their main innovations being made elsewhere in the U.S. and Japan. These countries enjoy a period of growth in home markets of the early followers before the developing countries, the late followers, catch up.

It warns that the shortening gap between innovation and the wide dispersal of technology raises questions about the viability, let alone the stability, of such a form of specialisation. But it adds that in practice governments of advanced countries have also intervened to promote new products and to resist the loss of production to less technically sophisticated countries with low wage costs.

The report also questions the ability of poor and more highly populated countries to follow in the footsteps of the fast growing, newly industrialised countries.

"There are possibilities for Asian and African countries trying to reproduce the history of Far Eastern NICs in this (electronics) sector. But the expectations of many of their governments may be quite excessive."

It also doubts just how far even the most sophisticated NICs can develop into the more technologically independent, higher value added production to which they aspire.

* *British Electronics and Competition with Newly Industrialising Countries. By Vincent Cable and Jeremy Clarke. The Overseas Development Institute, July 6, 1981; 10-11, Percy Street, London WIP 0JB; 125 pages; £2.50.*

Zimbabwe Rail deal for GEC

By Our World Trade Staff

CONTRACTS worth nearly £13m for improvements for the Zimbabwe National Railways have been won by two British companies.

GEC Telecommunications announced it has secured an £8.5m contract to supply a 300 kilometre communications system for the railway. The system will run from Salisbury to Dabuka in the south-central part of the country. The system is part of an overall railway electrification project being carried out by a group of British companies.

Westinghouse Brake and Signal Company, part of the Hawker Siddeley Group, will supply over £4m in signalling equipment to the electrification project. The company said the equipment will be used for the first phase of the electrification programme.

Dutch housing order

The Ballast-Nedam Groep has received a Fl 1bn (£190m) order from the Saudi Arabian Government for the construction of houses and infrastructure, Reuter reports from Amsterdam. The order is an extension of an earlier contract for the building of towns in Riyadh, Dhahran, Taif and Khamis, projects which Ballast-Nedam started in 1975. Amsterdam-Rotterdam Bank will lead a bank consortium for a guarantee facility for the new order.

Washington moves to soothe foreign fear on anti-trust law

BY PAUL CHEESERIGHT IN CANBERRA

THE U.S. has acted to ease friction with its allies over the application of its anti-trust laws outside its borders.

Senator Peter Durack, the Australian Attorney General, has been invited to Washington for talks in November with his American counterpart Mr William French Smith.

This will provide an opportunity for Australia and the U.S. to resume negotations about an agreement to set up a mechanism for giving early warning of possible U.S. anti-trust investigations involving Australian companies.

When first mooted last year such an agreement was considered a model which could be applied by the U.S. to other countries, but the Australian Government is still awaiting a draft treaty first promised by the Carter Administration.

The decision to resume the talks about the application of U.S. anti-trust laws emerged from talks Mr Malcolm Fraser, the Australian Prime Minister had late last month in Washington with President Reagan.

It indicates the apparent desire of the Reagan Administration to soften the antagonism caused by the U.S. judicial doctrine that any action outside the U.S. affecting U.S. commerce is subject to the jurisdiction of the U.S. courts.

Such a doctrine, considered to impinge on the sovereignty of other nations, has been bitterly contested not only by Australia but also by the UK and EEC countries and by Canada and Commonwealth countries.

It has resulted in a spread of legislation like the UK protection of Trading Interests Act designed to prevent enforcement of U.S. court anti-trust judgments.

Senator Durack has just introduced in the Australian Parliament a new Bill providing a means for Australians penalised in foreign anti-trust judgments to recover in Australia all they have lost in penalties abroad. Recovery would come from the Australian assets of the foreign company winning the case.

Australian anger about U.S. claims to exercise jurisdiction abroad has been heightened by a case brought in a Pittsburgh, Pennsylvania, court by the Conservation Council of Western Australia. This seeks to prevent Alcoa and Reynolds Metals, two U.S. groups, from mining bauxite in the state.

Both the defendants and the Australian Government have told the court it has no jurisdiction to hear the case. The judge will decide whether to dismiss the action, because it concerns Western Australia and not the U.S., during the next few days.

But Australia's officials have drawn some comfort from a speech last week by Mr French Smith who said that the U.S. Justice Department is studying the application abroad of U.S. anti-trust laws. And President Reagan conceded to Mr Fraser that U.S. anti-trust laws have some "rough edges."

Swedish group in Greek hospital order

BY WESTERLY CHRISTNER IN STOCKHOLM

SWEDEVELOP, Hospital AB, a Swedish medical building contractor, has landed a SKr 560m (£55m) turnkey order from the Greek government for a university teaching hospital.

The contract was awarded by the Ministry of Social Services in Athens on behalf of the University of Ionnina, located near the Albanian border, according to Mr Lars Lundgren, Swedevelop Hospital managing director.

Swedevelop Hospital is responsible for project programming, architecture, construction, equipment delivery and training of some technical personnel. The hospital is to be completed in three years with on-site work scheduled to begin this autumn.

World Economic Indicators

TRADE STATISTICS

		May '81	Apr. '81	Mar. '81	May '80
France FFr bn	Exports	47.010	48.478	45.205	38.328
	Imports	50.357	50.654	48.811	45.558
	Balance	−3.347	−2.176	−3.606	−7.230
		Apr. '81	Mar. '81	Feb. '81	Apr. '80
W. Germany DMbn	Exports	33.6	33.8	30.2	31.3
	Imports	30.3	33.9	29.3	29.3
	Balance	+3.3	−0.1	+0.9	+2.0
Japan $bn	Exports	12.610	13.727	11.902	9.881
	Imports	11.100	11.616	10.522	10.372
	Balance	+1.510	+2.111	+1.380	−0.491
U.S.A. $bn	Exports	19.82	21.43	19.76	18.57
	Imports	23.28	21.88	21.92	19.77
	Balance	−3.46	−0.45	−2.16	−1.20
Italy Lire bn	Exports	7,265	5,250	5,921	5,411
	Imports	9,387	7,114	7,454	6,921
	Balance	−2,122	−1,864	−1,533	−1,510
		Jan. '81	Dec. '80	Nov. '80	Jan. '80
Belgium BFrbn	Exports	142.580	162.267	168.626	155.700
	Imports	174.177	180.887	186.028	181.768
	Balance	−31.597	−18.620	−17.402	−26.068

SHIPPING REPORT

Outlook grim as tanker rates continue to slide

BY OUR SHIPPING CORRESPONDENT

TANKER chartering rates slid even further last week and the prospect of any improvement for shipowners looks as remote as ever in the present oil glut.

There could be around 60 large tankers available to take any new business from the Arabian Gulf between now and the end of July, according to Galbraith Wrightson in its weekly tanker market report.

One major U.S. oil group took a 250,000 dwt vessel for the Arabian Gulf to Mediterranean route at Worldscale 23½, based on the old rate, not the improved Worldscale levels which came into effect at the start of this month.

As a result of the extreme slackness in the tanker market, scrapping and lay-ups have continued. By the middle of this year, over 7.2m dwt of tanker and combination carrier tonnage had been scrapped compared with 8.6m dwt for the whole of last year, latest figures from Howard Houlder showed.

The amount of tonnage either laid-up, idle or being repaired was almost 16.4m dwt,

British Steel to announce loss exceeding £600m

BY ALAN PIKE

THE BRITISH STEEL Corporation will set another negative record this week and announce losses for the last financial year of more than £600m.

Results for the year ended in March, due to be published tomorrow, will be worse than the 1979-80 record loss of £545m. BSC executives have calculated unofficially that this year's loss will be about £660m.

This annual report is the first to be presented by Mr Ian MacGregor, who became chairman a year ago. He will draw some comfort from the fact that there has been a sharp reduction in the corporation's rate of loss in recent months.

Mr MacGregor and his colleagues are anxious to stress, however, that much remains to be done if BSC is to be restored to viability. Later this month, Mr MacGregor will meet Sir Keith Joseph, the Industry Secretary, to review progress on BSC's new corporate plan.

new issues. One the other the

There are fears among steelworkers that the review may lead to still further job losses on top of some 70,000 redundancies in BSC in the past 18 months.

Mr MacGregor does not intend to make final decisions on any adjustments to the plan which may be found necessary until he receives the detailed results on BSC's performance in the first quarter of the present financial year. These will not be available until later this month.

BSC announced yesterday an investment of about £18m to increase continuous casting facilities at Scunthorpe, the first major investment of Mr MacGregor's chairmanship. Continuous casting, as well as being more cost-effective, enables steel manufacturers to give customers better-quality guarantees.

The Scunthorpe workforce has recently been breaking iron-making records on the plant's elderly blastfurnaces, while employees in other works, like Llanwern and Port Talbot, have shown a remarkable willingness to abandon old working practices.

Observer editor attacks basis of Lonrho takeover

BY ALAN PIKE

THE MONOPOLIES and Mergers Commission's basis for approving Lonrho's takeover of The Observer was strongly attacked by Mr Donald Trelford, the editor, in yesterday's issue of the newspaper.

Last week the commission recommended that the sale to Lonrho by Atlantic Richfield, the American energy group, should be allowed to go ahead subject to a series of conditions, including the appointment of at least six independent directors to The Observer board. The commissions report has been accepted by Mr John Biffen, Trade Secretary.

In his editorial Mr. Trelford described the commission's recommendations as illiberal, unworkable and unacceptable, and said he and his journalists would not accept the "shoddy" report. He accused the commission of reaching conclusions which did not flow from the evidence in a report which contained no serious analysis of the central issues involved.

"It dodges all the awkward questions. It takes all the easy options. It lacks intellectual rigour or a convincing urge for the truth. It allows obvious inconsistencies to go unchecked. It rests its final conclusion on a concept of independent directors which has never been tested.

Mr Trelford said he and his journalists could not settle for such a specious solution. The newspaper's readers needed to be reassured that they would continue to read the honest opinion of free men and women. "They should not be reassured by what is proposed so far. There must be a better way."

National Union of Journalists' representatives on the newspaper last week saw Mr Biffen and demanded the imposition of written conditions including the election of two journalists to the board and proper consultation over the independent directors.

● Mr Trelford's message was lost on many of The Observer's regular readers. Later editions of the newspaper were not produced because of a dispute involving members of the National Society of Operative Printers, Graphical and Media Personnel (Natsopa).

The company considers the men, who work in the machine room, to be on unofficial strike over pay differentials while the Natsopa members claim they were locked out. The company is likely to announce this week that it will not resume publication unless it receives guarantees of uninterrupted production.

Hope of London seat for Mrs. Williams

BY OUR LOBBY CORRESPONDENT

MRS SHIRLEY WILLIAMS could have an opportunity to fight a by-election this autumn.

Mr Bob Mellish, the veteran Labour MP for Bermondsey, South London, said yesterday that he would resign in the autumn if he found that his new job as vice-chairman of the Docklands Development Corporation interfered too much with his duties as an MP.

Bermondsey is a safe Labour seat and in many ways would seem unsuited to the Social Democrats. But it has a large Catholic population which could marginally improve the chances of Mrs Williams, herself a Catholic, if she decided to take the gamble.

Mr Mellish, an old-fashioned right winger, has been increasingly at odds with his constituency party, which has been moving steadily to the left. At one point, before Mrs Williams finally left the Labour Party, it looked as if he might step down to create a by-election for her.

Despite agreeing to take on the job of vice-chairman of the Docklands Development Corporation, he has until now declined to give any firm indication of whether he intends staying on at Westminster.

Yesterday he said he wanted to see how the job worked out. "If it works out that it will take up too much of my time to do my MP's job reasonably well, I will pack up from Parliament."

Mr Mellish, MP for Bermondsey for the past 35 years, has always stressed that he had no intention of joining the SDP. But if he resigned it would give Mrs Williams the chance she has said she would like to fight a by-election in the autumn.

Call to restructure EEC Budget

By Guy de Jonquieres

The Confederation of British Industry has called on the Government to make the restructuring of the Community Budget its top priority during Britain's six-month presidency of the EEC Council of Ministers, which began last week.

The CBI said in a paper submitted to Lord Carrington, the Foreign Secretary, that it was essential to review the Common Agricultural Policy and to release more EEC funds for spending which would benefit industry.

The Community's resources should flow from richer to poorer countries, and more money should be channelled to industry through the EEC Regional and Social Funds. The ceiling on the EEC budget should not be raised until these reforms had been made.

The CBI also called for coordinated actions by EEC governments towards trade with and investment from Japan. It called for measures to make Japan balance its trade with the Community and the establishment of an early warning system to detect the excessive build-up of new types of imports.

Internally, the EEC should press ahead with efforts to strengthen the Common Market by removing technical barriers to trade and liberalising services, such as insurance.

Northern councils plan to oppose Stansted

BY RHYS DAVID

THE MAIN local authorities throughout the north of England are to form a common front to oppose plans by the British Airports Authority to develop a third London airport at Stansted in Essex.

A joint case listing the region's objections now seems likely to be presented to the public inquiry into the scheme in September. A major campaign by northern MPs is to be mounted in Parliament, with the first efforts likely this week to secure a meeting with Mr Heseltine, Environment Secretary.

The decision to oppose Stansted was taken at a meeting in Manchester, organised by Manchester International Airport Authority and attended by MPs and representatives from northern local authorities, chambers of commerce, and regional airports.

This passed a resolution calling for investment in regional airports to be accorded national planning priorities in preference to Stansted and deploring the public investment "bias" in favour of the South-East over several decades.

The main fear is that Stansted's development — the first stage of which is expected to cost £500m and bring capacity up to 15m passengers—will preempt a further large chunk of public expenditure at a time when the South-East will already be enjoying the benefit of other big capital projects such as the Channel Tunnel, British Rail's cross-London link and the M25 London orbital road.

As a result, it is claimed, although the Government is on paper committed to the development of regional air services, in practice it might be unwilling to make available the loan sanctions required for the development of northern regional airports such as Manchester, Newcastle, Leeds and Liverpool.

According to the northern lobby, if a decision is made to go ahead with Stansted, it will accentuate the growing disparity in wealth between north and south and simply stimulate urbanisation in the South-East and encourage the creation of "two nations."

This overall economic argument apart, it is also being claimed that Stansted's development on the scale envisaged is excessive, and will itself influence the pattern of demand for air services in Britain for possibly the next 40 years.

Airlines which have to split their services between Stansted and London Heathrow will be unwilling for cost reasons, it is argued, to develop a third base offering international services at Manchester—an airport given international gateway status by the Government in its White Paper on airport policy two years ago.

Grocery prices index up again

BY DAVID CHURCHILL, CONSUMER AFFAIRS CORRESPONDENT

FINANCIAL TIMES SHOPPING BASKET, JUNE 1981

	June £	May £
Dairy produce	677.95	676.52
Sugar, tea, coffee and soft drinks	209.05	210.50
Bread, flour and cereals	313.06	309.09
Preserves and dry groceries	114.13	112.53
Sauces and pickles	53.69	54.25
Canned goods	195.93	193.11
Frozen foods	241.04	237.73
Meat, bacon, etc. (fresh)	580.17	576.55
Fruit and vegetables	292.61	285.28
Non-foods	243.28	242.49
TOTAL	2,920.91	2,898.04

1980: January 120.47; February 122.32; March 124.18; April 125.94; May 128.79; June 128.53; July 129.04; August 128.41; September 127.41; October 126.84; November 127.77; December 129.38
1981: January 130.96; February 131.75; March 132.75; April 134.93; May 136.30; June 137.37.

THE FINANCIAL TIMES grocery prices index rose in June for the ninth month in succession. The index stood at 137.37, a rise of 1.07 on May.

The increase in the cost of the shopping basket on which the index is based was mainly caused by a marginal rise in prices in most sectors.

This has been the trend for much of the past nine months, with no area outstripping any other. In June, the main increase came from higher fresh fruit and vegetable prices—up by 2.5 percentage points—but all sections rose slightly.

The index is based on data collected by 25 shoppers, who monitor a list of more than 100 items each month in the same shops. The shops range from village grocers to superstores.

The index is a guide only and should not be taken as an absolute indicator of food prices. These can vary considerably according to shop type and location.

In the grocery market, it appears that food sales have maintained their volume in recent weeks although the sector is facing what is normally one of its "dull" trading periods.

Mainstop, the superstores operation of BAT Stores, reports that sales have increased substantially in recent weeks in comparison with the same period last year.

Mainstop has noticed a trend in particular towards more fresh foods.

The FT grocery prices index is copyright and may not be reproduced or used in any way without consent. All inquiries should be made to Lucinda Wetherall at the Financial Times.

Foot promises tax cuts and higher spending

BY ROBIN REEVES, WELSH CORRESPONDENT

THE OUTLINES of a big reflationary policy by the Labour Government on assuming office were spelled out at the weekend by Mr Michael Foot, the Opposition leader.

Mr Foot told an unemployment rally in Cardiff that the "silliest and wickedest story peddled by the Tories" was that there was no alternative to their policies.

As soon as it got the chance, the Labour Government would:

● cut income tax for "the mass of working people"—at least so as to restore the real value of personal allowances:

● reduce "burdonsome" indirect taxes, particularly the National Insurance surcharge and heavy oil duty:

● reduce Minimum Lending Rate

● increase public expenditure on "essential social and community services":

● encourage major infrastructure modernisation programmes in the nationalised industries and public services.

Mr Foot conceded that the programme would result in an increase in the Public Sector Borrowing Requirement but, like any company or organisation, it was necessary to borrow in order to grow, he said. He believed that much of the cost would be offset by the resulting growth in the economy.

Mr Foot admitted the programme would probably cause the pound to fall, but said this would stimulate further the economy by improving the competitiveness of exports and sales of manufacturing in domestic markets.

The rally was attended by about 12,000 Labour supporters from all over Britain.

Stock Exchange turnover in June

Trade increases in all sectors

BY GEOFFREY FOSTER

HELPED BY the fact that there were three more trading days last month compared with May, Stock Exchange turnover was higher in all sectors. Total turnover in June was £17.4bn, up by £1.79bn or 11.5 per cent.

The Financials Times turnover index for all securities rose from the May level of 478.4 to 533.2 and the 1980 monthly average was 501.2.

Currency uncertainties and revived fears about the short-term outlook for interest rates restrained business in gilts, but dealings in the funds over the month rose by £1.73bn to £13.43bn, of which shorts accounted for £6.72bn.

The number of bargains in gilts increased by 5,191 to 74,201 with deals in shorts 1,822 higher at 22,916. Deals in longs and irredeemables rose 2,369 to 51,285. The FT turnover index for government securities rose to 568.3 from the May level of 520.5 and compares with the 1980 monthly average of 535.0.

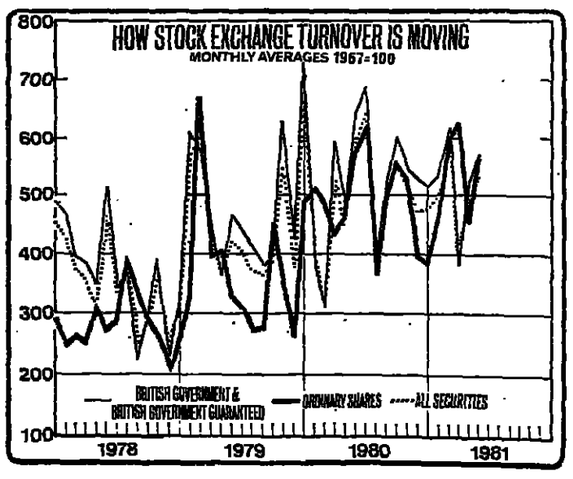
Equity turnover rose £600m to £3.16bn and the number of bargains improved by 38,316 to 344,839. The average value per equity bargain was £9,163 compared with £8,239 in May. The FT turnover index for ordinary shares moved up to 563.8 last month compared with May's 450.6, while April's index was 624.1.

Composite insurances were enlivened by bid hopes after a surprise dawn raid on Eagle Star by Allianz, the German concern while the big banks—Lloyds in particular—also attracted speculative activity after a Press report suggesting that a possible Monopolies Commission clearance of Hongkong and Shanghai Banking's near-£500m, bid for the Royal Bank of Scotland could lead to a U.S. bid for a British clearing bank.

Defence stocks became prominent on belief that proposed spending cuts were less than feared but generally miscellaneous industrial leaders were held in check in front of and after the June 18 announcement of BP's £624m rights issue, the largest underwritten new equity issue.

The Financial Times industrial ordinary share index closed the month 2.3 points harder at 544.8 after moving between 555.6 and 535.8.

The FT gold mines index, reflecting a fall of $52½ in the gold price over the month to $427 an ounce ended June 90.2 points down, or 25.27 per cent, at 266.7.



Category	Value of all purchases & sales £m	% of total	Number of bargains	% of total	Average value per day £m	Average value per bargain £	Average number of bargains per day
British Government and British Government Guaranteed							
Short-dated (having five years or less to run)	6,719.3	38.6	22,916	5.1	305.4	293,216	1,042
Others	6,707.1	38.5	51,285	11.3	304.9	130,780	2,331
Irish Government							
Short-dated (having five years or less to run)	210.5	1.2	2,133	5.0	9.6	98,687	97
Others	111.9	0.7	2,377	0.5	5.1	47,085	108
U.K. Local Authority	336.6	1.9	4,304	0.9	15.3	78,197	196
Overseas Government							
Provincial and Municipal	31.1	0.2	931	0.2	1.4	33,447	42
Fixed Interest Stock							
Preference and Preferred							
Ordinary Shares	125.3	0.7	24,515	5.4	5.7	5,113	1,114
TOTAL (Categories 1-7)	14,241.9	81.8	108,461	23.9	647.3	131,309	4,930
Ordinary Shares	3,159.8	18.2	344,839	76.1	143.6	9,163	15,675
TOTAL (Categories 1-8)	17,401.6	100.0	453,300	100.0	*791.0	*38,389	*20,605

* Average of all securities

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

July 15-Aug. 1	The Royal Tournament (01-371 8141)	Earls Court
July 15-17	The London Cleaning and Maintenance Exhibition (01-446 2411)	Wembley Conference Centre
July 19-23	Autumn '81 Lightshow (Moelfre 88396)	Olympia
July 19-23	21st Harrogate Gift Fair (0382 867153)	Harrogate
Aug. 21-31	Motorcycle Show—BIKE '81 (01-385 1200)	Earls Court
Aug. 23-26	International Craft and Hobby Fair (04252 72711)	Wembley Conference Centre
Aug. 23-28	Solar World Forum—International Energy Society Congress and Exhibition (01-493 6601)	Brighton Centre
Sept. 3-5	Business and Light Aviation Show (01-643 8040)	Cranfield Airfield
Sept. 6-10	Watch, Jewellery and Silver Trades Fair (01-643 8040)	Earls Court
Sept. 8-10	Laboratory 81 Exhibition (0799 22612)	Grosvenor House, W1
Sept. 15-18	Offshore Europe 81 Exhibition and Conference (01-549 5831)	Aberdeen

OVERSEAS TRADE FAIRS AND EXHIBITIONS

July 7-11	International Oil and Gas Exposition (01-637 8575)	Mexico City
July 8-12	International Audio-Visual Equipment Exhibition (021-705 6707)	Singapore
Aug. 24-28	International Public Works and Municipal Services Exhibition—CIVICON (01-486 1951)	Johannesburg
Aug. 25-Sept. 2	International Exhibition of Agriculture, Machinery and Produce (01-486 1951)	Mexico
Aug. 28-Sept. 6	International Fair of Consumer Goods (01-874 6034)	Stockholm
Aug. 29-Sept. 2	International Fair (01-734 0543)	Frankfurt
Sept. 4-13	International Radio and TV Exhibition (01-540 1101)	Berlin
Sept. 5-8	International Exhibition of Sports Goods and Outdoor Activities (01-439 3964)	Paris
Sept. 9-12	Electronic Packaging Exhibition—INTERNEPCON (01-390 0281)	Taipei
Sept. 11-20	International Autumn Fair (01-486 1951)	Zagreb
Sept. 14-18	SE Asian Production Machinery and Engineering Equipment Exhibition (01-486 1951)	Singapore

BUSINESS AND MANAGEMENT CONFERENCES

July 6-10	IPM: The Work of the Personnel Department (01-387 2844)	Embassy Hotel, W2
July 7	Hille International: Office Facility Planning Seminar (01-580 2080)	London Business School
July 8	Parliamentary Information Technology Committee: Education, Training and Information Technology Seminar (01-236 3011)	London, SW1
July 9	New Opportunity Press: The Secrets of the Milkround (01-444 7281)	Queens Hotel, Leeds
July 12-17	Cranfield School of Management: Marketing of Financial Services (0234 751122)	Bedford
July 12-17	Institute of Bankers/Administrative Staff College, Henley: Business Strategies for the 1980s (01-623 3531)	Henley
July 13-14	The British Computer Society: British National Conference on Databases (01-637 0471)	Jesus College, Cambridge
July 14	Oyez-IBC: Management of Inshore/Offshore Diving Operations (01-242 2481)	Sudbury Conference Theatre, EC1
July 14	The Henley Centre for Forecasting: Agents of social change and their impact (01-353 9961)	Tudor Street, EC4
July 14	LCCI: Focus on Italy (01-248 4444)	Cannon Street, EC4
July 15	Liaison Committee for the Cleaning Industry: The Bubbles and the Politics (01-407 2304)	Wembley Conference Centre
July 15	Offshore Suppliers Information Centre: British National Oil Corporation Vendors Forum (01-439 9021)	Glasgow
July 16	Institute of Credit Management: Minis, Micros and Credit Management (0990 23711)	Cumberland Hotel, W1
July 16-17	Brunel Institute: Developing Women (0895 56461)	Uxbridge
July 17-Aug. 2	Investment Seminars International: Offshore investment seminar on international portfolio strategies and techniques (01-839 2922)	Grosvenor House Hotel, London
July 23-24	University of Bradford: The causes and symptoms of company failure (Bradford 42299)	Heaton Mount, Bradford
Aug. 6-7	AMR International: Executive Project Management (01-262 2732)	Gleneagles Hotel, Perthshire
Aug. 19	Institute of Credit Management: Credit Clerks Training Day (0990 23711)	Kensington Palace Hotel, W8
Aug. 25	Management Training Consultants: Modular Approach to Supervisory Training (0533 27062)	Aberdeen
Sept. 3	Citizens' Rights Office: Income Maintenance and the Personnel Officer's Job (01-405 5942)	Cora Hotel, WC1
Sept. 7	British Computer Society: Query Languages for the End User (01-637 0471)	Mount Royal Hotel
Sept. 10-12	Institute of Local Government Administrators: Employment—the Local Government Response (0206 45212)	Birmingham
Sept. 13-26	Seatrade Academy: Anatomy of Shipping (0223 353451)	Cambridge
Sept. 17	Freight Transport Association National Conference: Efficiency in the '80s (0892 26171)	Wembley Conference Centre
Sept. 17-18	The Economist: International Oil Supplies and Stockpiling Conference (01-839 7000)	Hamburg

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

£2m alcoholism fund to be set up

BY GARETH GRIFFITHS

A £2M fund for research and education connected with alcoholism is to be set up by the Government, with finance from the drinks industry and the prospect of further substantial help from brewers.

The money is to come from a scheme set up in 1904 to compensate licensees who lost their licences as part of a policy to reduce the number of public houses. The funds, which totalled more than £4m, were raised by a levy on public house owners, mainly the breweries.

The Brewers' Society provided the main thrust for the idea of setting up an education and alcohol research fund with the compensation money which has been mainly unused since 1940.

The society said yesterday that once the scheme was established companies in the drinks industry would provide further "substantial financial help."

The Home Office will appoint a chairman and trustees, although the fund money was released for the scheme through a private members' Act, introduced by Mr Robert Banks, Conservative MP for Harrogate.

The remaining £2m in the fund is to be split up. About £1m will be used to set up a new fund to support licensed trade charities, such as pensioner's homes and maintaining schools. The remaining £1m is to be held to deal with any claims on the original funds.

A recent paper on the problem drinker at work by the Health and Safety Executive, the Health Departments and the Department of Employment suggests that education is one of the most important elements in an anti-alcohol abuse programme.

Police presence reassures Southall's beleaguered Asian community

Lisa Wood analyses the role of skinheads in the weekend troubles

SOUTHALL HAS this weekend been ringed by special reserves of police, brought in after Friday night's disturbances. However, the local reaction to the heavy police presence was in sharp contrast to the tense atmosphere in Bristol during the April riots.

In this outer area of West London not far from Heathrow Airport, the police presence has tended to reassure the Asian community that it is safe from what is seen as racial provocation from outsiders.

In Brixton the fact that so many police were there was seen by some as provocation in itself. In an area with almost 30,000 blacks, mainly West Indians, the immediate cause of the conflict was an incident involving the police and a black youth.

So tense was the relationship between police and sections of the black community that youths believed that police were hindering, not helping, a stabbed West Indian.

In Southall, however, populated by some 30,000 Asians and 5,000 West Indians, the police bore the brunt of the petrol bombs and bricks — but the intended battle was between youths separated by the colour of their skins.

The Asian population believes itself much more the victim of racist attacks, particularly from skinheads.

One of Southall's home beat (community) policemen who, like his colleagues, was called in on Saturday to patrol the local streets, said: "If 200 skinheads come into an area like this, it is like a red rag to a bull. Somebody must be egging these skinheads on. I have noticed more extreme Right propaganda in the schools of late."

He bitterly regretted the consequences of Friday's disturbance and said: "We have been trying to win the Asian community's confidence for many years. These skinheads have undone all our work."

Discussions with large gatherings of Asians, young and old, who congregated outside the burnt-out Hambrough Tavern and along the bustling main shopping street bore this out.

As is common in this sort of incident, the police could not enjoy the complete confidence of either side. What officers on the scene saw as a genuine effort to keep the peace and hold the two factions apart, was interpreted by Asians as giving unreasonable protection to the skinheads from outside who had started the trouble by their provocative behaviour.

Some Asians say that the police do not believe them when they complain of racial attacks. The police say that there has been no recent increase in racially-motivated attacks and claim that the Asians often exaggerate incidents.

Whatever the truth of individual complaints, it is a fact that the weekend's disturbances are the most serious since those in 1979 when the National Front centred its activities in Southall. During the street disturbances that ensued Mr Blair Peach, a New Zealand teacher, died and many Asians were arrested.

Left to itself, the Asian community is a peaceful one. Scotland Yard yesterday described the area as "a relatively law-abiding one" with crime confined mainly to burglary and car thefts. The police spokesman added: "It is far more prosperous and stable than many other areas of London."

The terraced houses where Southall's Asian population is concentrated are among the most overcrowded in London and there is much unemployment, yet the community itself gives off an air of enterprise and economic confidence.

Mrs Shirley Lal Jhangiani, a pyschologist at a South London hospital near Brixton, compared Southall's streets and their neat stores selling saris, Asian foods and groceries with those in Brixton.

She said: "Asians over the last decade have given this area a real face-lift. Here we have an enterprising community that identifies with English goals. It wants to get on and build up its businesses.

To some extent the disturbances in Southall were simply a brawl between skinhead hooligans and Asian youths which got out of hand. Many people will draw comfort from the fact that in this sense it was not "another Brixton."

The underlying similarities must not be ignored, however. Mr Peter Jones, chairman of Ealing Community Relations Council, summed up what was for him the basic common factor.

He said: "We either believe we are being swamped by black people and perceive they are a 'problem'—or else we accept people as equal human beings. At present we have a Government which thinks the former. Until they change to believing the latter, we will have incidents such as this."

Stock Exchange council may be urged to use its powers more swiftly

BY CHRISTINE MOIR

STOCK BROKERS and jobbing firms are likely to be subject to much more stringent and positive auditing by the Stock Exchange following recommendations expected from a special committee established after the collapse of stock brokers Norman Collins and Hedderwick Sterling and Grumbar.

The committee, which is likely to complete its study of the two firms by the end of the month, was set up to see if their collapse had any significance to the present system of the Stock Exchange concerned with monitoring the financial stability of firms. It is believed to be on the point of recommending a significant strengthening of the council's present system of auditing firms' accounts.

The Stock Exchange already demands that firms submit their accounts to specially designated auditors. But the committee is believed to think that the council should be more ready and swifter to use its powers to appoint special investigatory auditors.

It is also likely to recommend a fresh look at ways in which the Stock Exchange might monitor firms following investigations. Hedderwick was the subject of two Stock Exchange investigations and a fraud squad probe into the activities of its gilts dealing department. None of these investigations, however, prevented the eventual collapse of the firm ahead of the proposed—but ultimately abortive—merger with Quilter, Hilton Goodison.

The Stock Exchange has also moved to tighten the rules governing discretionary dealing by member firms on behalf of private clients.

A new rule, 79f, has been brought into effect. It lays down a code of practice wherever firms have discretion to deal on behalf of clients.

From now on firms must draw up a detailed written contract for such clients. It must define the objectives of the relationship—for instance whether dealings are to be directed towards capital growth or income, or both. It must also specify what type of investments or transactions are to be excluded.

The Stock Exchange also recommends that discretionary contracts be reviewed and controlled by a partner.

Scottish hotels for sale

BY MARK MEREDITH

MOVING STRONGLY into the four-star hotel business has caused Scottish and Newcastle Breweries to put up for sale 15 to 20 of its small open-house inn hotels in Scotland.

These were part of the company's Thistle Hotel Group and catered for the travelling salesman and budget-conscious tourist. They were bought originally because of Scottish licensing laws which allowed sale of spirits on Sunday at hotels only.

Pubs now open on Sunday, and the hotel ambitions of Scottish and Newcastle have changed. Its recent purchase of the EMI hotel and restaurant group enlarges its stake towards the top of the market.

Thistle is expanding faster in England than Scotland, and the hotel operations headquarters will soon transfer from Edinburgh to London.

Scottish and Newcastle says that revenue from the 26 Open-House inns, 20 in Scotland, was small and administration costs were high. Directors expect that many will be sold to families or small hotel groups.

Some may be transferred to the managed houses division of Scottish and Newcastle.

FT Monthly Survey of Business Opinion

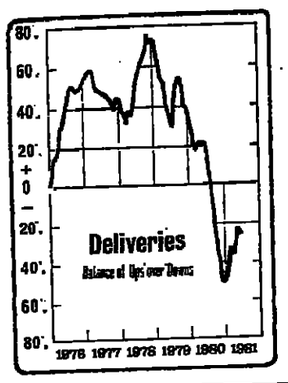
GENERAL OUTLOOK

Confidence improves again

Industry's optimism about the business outlook registered another sharp improvement last month, reflecting fresh confidence that the worst of the recession is now over.

The index measuring companies' optimism about the general business situation rose for the fourth successive month. Following the steep decline last year, the index is now back to around its levels of the first half of 1979.

Of the three groups covered last month, chemical and oil companies were less inclined to describe themselves as optimistic, but the engineering industry and shipping and transport companies both registered improvements.



In the chemicals and oil sector, the main positive factor was an upturn in overseas business. Some engineering companies said they had noticed an increase in orders as well as simply an end to their decline. Improvements in trade were also pointed out by shipping and transport firms.

Both the engineering and chemical and oil sectors were also more optimistic about prospects for the UK economy than they had been when last surveyed in February.

GENERAL BUSINESS

Are you more or less optimistic about your company's prospects than you were four months ago?	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
More optimistic	41	37	27	21	34	29	55
Neutral	41	41	47	50	24	54	40
Less optimistic	18	22	26	29	42	17	41

EXPORT PROSPECTS (Weighted by exports)

Over the next 12 months exports will be:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Higher	49	42	41	40	45	56	72
Same	25	29	26	27	29	6	28
Lower	25	28	32	32	26	38	—
Don't know	1	1	1	1	—	—	—

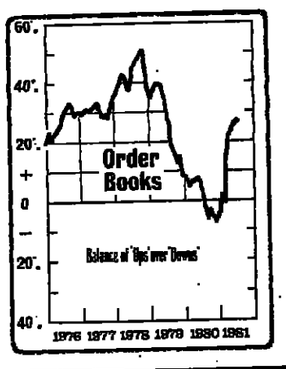
ORDERS AND OUTPUT

Signs of better demand

Industry recorded further signs last month of improved demand, although the recent increases in deliveries seem to have tailed off.

All three sectors were more inclined to report a higher trend of new orders. However the index measuring companies' order books—which has risen steeply during the past few months—showed hardly any change as the chemicals and oil sector reduced its expectations for increased order levels.

One bright spot was the improvement in export prospects mentioned particularly by the engineering and chemical and oil sectors. Companies also expected output would continue to improve during the next 12 months.



Respondents said the recession was still affecting deliveries. The fall in sterling against the dollar was helping U.S. sales, but turnover in Europe was still being affected by the strength of the pound against Continental currencies.

The shipping and transport sector cited high world oil stocks, the world recession and the U.S. miners' strike as negative influences

NEW ORDERS

The trend of new orders in the past 4 months was:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Up	18	18	13	14	23	—	42
Same	28	24	25	20	17	29	29
Down	35	42	47	49	56	46	6
No answer	19	16	15	17	4	25	23

PRODUCTION/SALES TURNOVER

Those expecting production/sales turnover in the next 12 months to:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Rise over 20%	2	1	3	3	—	8	—
Rise 15-19%	—	—	—	—	—	—	—
Rise 10-14%	5	6	3	5	—	—	14
Rise 5-9%	17	16	11	11	9	29	1
About the same	59	60	62	58	57	46	65
Fall 5-9%	6	6	8	7	30	—	—
Fall over 10%	4	6	6	5	—	—	—
No comment	7	5	7	11	4	17	20

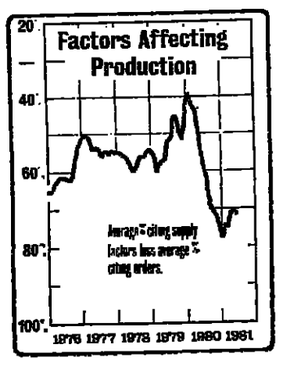
CAPACITY AND STOCKS

Improved output levels

Further evidence of an improvement in industry's capacity usage came from a fall last month in the number of companies saying they were working at below planned output levels.

All three sectors were less inclined to report that fixed assets were not being used. A particular improvement was noticed in the engineering and shipping sectors.

All three sectors were more inclined than they had been in February to expect stocks of all types to increase during the next 12 months. The increase in expectations for work in progress was particularly large.



Respondents were also more inclined to report that stock levels were roughly adequate rather than too high.

Order shortages rather than supply-side factors continue to be the main influences constraining output.

STOCKS

Raw materials and components over the next 12 months will:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Increase	30	29	23	19	42	21	—
Stay about the same	49	47	48	44	24	46	85
Decrease	18	22	25	31	14	33	1
No comment	3	2	4	6	20	—	14
Manufactured goods over the next 12 months will:							
Increase	26	24	21	18	42	25	—
Stay about the same	46	46	48	44	6	29	—
Decrease	15	19	19	26	18	34	29
No comment	13	11	12	12	34	12	71

FACTORS CURRENTLY AFFECTING PRODUCTION

	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Home orders	92	92	91	91	100	100	43
Export orders	61	60	62	64	98	83	69
Executive staff	3	2	—	—	—	—	28
Skilled factory staff	2	2	3	4	4	—	—
Manual labour	1	—	—	—	—	—	28
Components	1	1	—	—	—	—	—
Raw materials	5	7	4	4	—	—	—
Production capacity (plant)	3	3	3	3	—	—	—
Finance	—	1	—	1	—	—	—
Others	18	15	14	13	11	42	20
Labour disputes	11	15	16	11	—	—	34
No answer/no factor	4	3	1	1	—	—	17

CAPACITY WORKING

	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Above target capacity	5	5	3	3	—	—	—
Planned output	38	35	29	33	27	34	51
Below target capacity	48	51	59	56	73	66	49
No answer	9	9	9	8	—	—	—

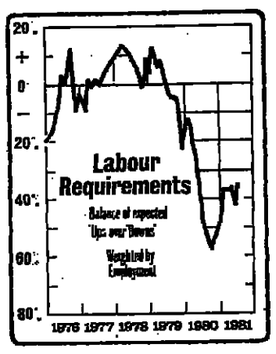
LABOUR AND INVESTMENT

Employment outlook gloom

The employment outlook remains gloomy, even though all three sectors were slightly less pessimistic about the prospects for taking on more staff during the next 12 months.

Although the index measuring expected labour requirements recovered after the previous month's fall, it remains highly depressed.

Demand factors rather than wage costs continued to be the main influences on firms' workforce plans.



The chemicals and oil sector reduced its expectations of higher capital investment over the next 12 months, offsetting greater optimism in the engineering and shipping and transport industries.

Around one third of the companies quizzed expected overseas capital spending to rise.

The index measuring liquidity levels continued to improve, with the engineering sector reporting that its liquidity if anything was too high.

LABOUR REQUIREMENTS (Weighted by employment)

Those expecting their labour force over the next 12 months to:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Increase	13	10	11	12	40	10	10
Stay about the same	39	39	42	38	32	44	51
Decrease	48	51	47	49	28	46	39
No comment	—	—	—	1	—	—	—

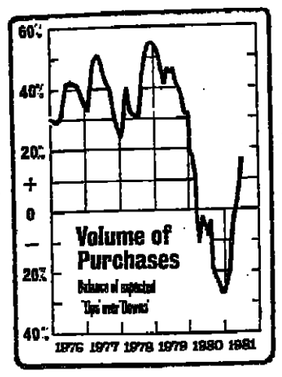
CAPITAL INVESTMENT (Weighted by capital expenditure)

Those expecting capital expenditure over the next 12 months to:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Increase in volume	22	28	26	25	35	3	25
Increase in value but not in volume	8	6	6	7	16	3	7
Stay about the same	26	26	22	25	18	19	37
Decrease	40	40	45	42	31	75	5
No comment	4	—	1	1	—	—	26

COST AND PROFIT MARGINS

Inflation prospects worsening

Inflationary expectations seem to be worsening again as industry edges out of recession. This followed a sharp drop in the expected levels of wage and price inflation during the past 12 months.



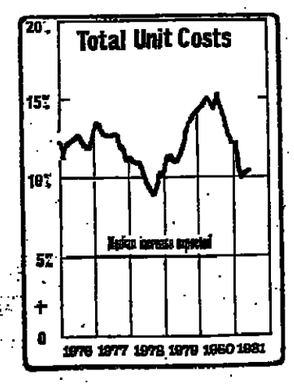
Compared with the last survey in February, both the chemical and oil and the shipping/transport sectors expected higher rates of wage. As a result, the medium expected increase in wage rises over the next year rose slightly further above 10 per cent. This was the same as the forecast increase in unit costs during the next 12 months.

The chemical and oil sector also expected higher price rises during the next year, though the other two groups expected more moderate increases. The median expected price rise across all three groups is just under 10 per cent.

The index measuring expectations for profit margins showed a further improvement, mainly because of optimism in the chemical/oil and shipping/transport sectors.

Three sectors and some 30 companies are covered in turn every month. They are drawn from a sample based upon the FT Actuaries' index, which accounts for about 60 per cent of all public companies.

The all-industry figures are four-monthly moving totals covering 120 companies in 11 industrial sectors (mechanical engineering is surveyed every second month).



Complete tables can be purchased from Taylor Nelson and Associates.

COSTS

	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Wages rise by:							
0-4%	—	—	1	1	—	—	—
5-9%	43	45	53	49	94	46	15
10-14%	48	46	40	40	4	54	85
15-19%	—	—	1	4	—	—	—
Same	—	—	—	—	2	—	—
No answer	9	9	5	6	—	—	—
Unit cost rise by:							
0-4%	2	3	6	7	—	—	—
5-9%	34	35	35	30	69	21	15
10-14%	40	39	37	40	13	62	—
15-19%	2	4	5	6	4	—	6
20-24%	1	1	—	—	—	—	—
Same	—	1	1	1	—	—	—
Decrease	2	2	2	2	—	—	—
No answer	19	15	14	14	14	17	79

PROFIT MARGINS

Those expecting profit margins over the next 12 months to:	4 monthly moving total: Mar.–June %	Feb.–May %	Jan.–Apr. %	Dec.–Mar. %	June 1981: Eng. (non-elec.) %	Chems. & Oils %	Shipping & Transport %
Improve	45	38	37	30	38	75	4
Remain the same	35	37	39	39	14	21	42
Contract	20	24	23	30	48	4	48
	—	1	1	1	—	—	6

UK NEWS – LABOUR

Government may alter formula on police pay

BY OUR LOBBY CORRESPONDENT

THE GOVERNMENT may press for a new formula to be used this year to calculate police pay, on which it is seeking to avoid an embarrassing and potentially politically damaging, confrontation with the police.

For the last two years, police pay has been linked to the average rise in earnings. But now, the Home Office may try to persuade the other bodies represented on the Police Negotiating Board to accept a new formula, which would take account of other factors. This would almost certainly result in the police being recommended an increase below the 13 per cent or so which they would probably get under the old formula.

The Government has a manifesto commitment to improve police pay and to honour the recommendations of the Edmund Davies committee, which proposed the formula under which police pay has, for the last two years, been linked to average earnings.

Any attempt to over-ride the board's recommendations would run into trouble from the Conservative backbenches.

But the committee also said that, after 1978, the board should be able to take into account new factors, and that all those represented on the board should be able to propose variations on the formula.

Given the Government's determination to keep public sector pay rises to single figures, the Home Office may well argue for a modified formula.

But it is not certain that either the police themselves, or the local authorities, who sit on the board with the Home Office, would accept the change.

● The Bank of England, whose pay negotiations are covered by the Government's 6 per cent cash limit, has agreed to a 7.5 per cent pay deal.

Mr Ian Partridge, general secretary of the Bank of England Staff Organisation, said the deal was within the 6 per cent target because of savings through voluntary severance.

The Bank is expected to seek a further 150-200 redundancies on top of the reduction of about 1,000 staff last year.

Miners likely to attempt breach of wage policy

BY CHRISTIAN TYLER, LABOUR EDITOR

THE FIRST public sector union to try to break through the informal single-figure wage policy is likely to be the National Union of Mineworkers, despite an appeal to the union's conference this week from Mr Joe Gormley, the NUM's outgoing preident, not to commit his negotiators to a specific figure.

Left-wing areas of the union have tabled motions demanding a minimum wage of £100 a week—the same claim passed by last year's conference which would mean a rise of about 25 per cent from November 1.

On the eve of the conference, Mr Gormley made his customary effort to give the negotiators room for manoeuvre, arguing that £100 a week is already the union's wage target.

But the militants are most unlikely to heed him when the process of drawing up composite wage motions starts today.

The Left insists that its motions stand because of the sting in their tails. These instruct the national executive to recall the conference if the claim is not met so that rank and file delegates—and not the executive—can decide what, if any, industrial action to recommend in a ballot of the members.

The moderates still command a majority on the executive. The conference has been moving the Left's way in recent years.

After a meeting of the big Yorkshire delegation yesterday, Mr Arthur Scargill, area president, said he saw the wages issue as a test of the Government's whole economic strategy with the National Coal Board and not merely as argument about money.

He claimed that the trade union movement was preparing for a showdown with the Government although the issue triggering that confrontation could not be foreseen with certainty.

TUC structure changes proposed by council

BY NICK GARNETT, LABOUR STAFF

THE TUC general council's report on developing the TUC's structure over the next five years, which will be put before Congress in September, contains two proposals for immediate implementation and pilot schemes on six issues.

The ability to capitalise on these schemes and adopt them will be governed partly by cost.

Early proposals for much greater powers for the TUC have been eroded during consultations and no not generally appear in the proposals.

The immediate projects would be:

● an examination of how the movement can increase its resources, with a report and recommendations to next year's Congress;

● development of existing work in developing regional organisation, trying to co-ordinate collective bargaining of unions, setting up industry committees and improving support to union members on public bodies.

The general council report says some of the pilot projects may not prove viable and among those that are useful, "the general council will assess priorities in light of the movement's financial position."

The six schemes would be:

● a bargaining bulletin covering pay, technology and other issues to provide greater union co-ordination and information;

● a project based on one TUC region and run by tutors and union education officers, to see how membership education can improve operation and involvement;

● two research projects, one on developing union links with ethnic minorities and the other on women's rights;

● a survey of international links, with an examination of British unions' involvement in union organisation in Hong Kong.

● a quarterly journal with a pilot period of a year to 18 months;

● a test of the demand for an extended information and advice service on health and safety.

COMPANY NOTICES

REGIE NATIONALE DES USINES RENAULT

6.75% 1967-1982

Loan of U.S.$20,000,000

We inform the bondholders that the redemption instalment of U.S.$2,000,000 nominal due 1st August 1981 has been satisfied by the drawings for redemption on 9th June, 1981 in Luxembourg, in the presence of as a "Huissier."

The bonds will be reimbursed at par on 1st August 1981, coupon due 1st August 1982 and followings attached, according to the modalities of payment on the reverse of the bonds.

The numbers of such drawn bonds are as follows:

009099	to	009222		009260			
009264				009270	and	009271	
009305	to	009318		009375	to	009377	
009426	to	009441		009443	to	009445	
009539	to	009548		009551			
009571	to	009575		009596	and	009597	
009615	to	009619		009623	to	009634	
009653	to	009659		009674	to	009681	
009692	to	009694		009699	to	009703	
009732	to	009735		009751			
009758				009828	to	009833	
009869				009879	and	009880	
009891				009909	and	009910	
009849	to	009951		009992	to	009997	
010040				010053	and	010054	
010140	to	010150		010153	to	010184	
010225	to	010229		010233	and	010234	
010244	to	010262		010285			
010292	to	010294		010321	to	010326	
010336	to	010337		010345			
010379	to	010381		010403	to	010407	
010417	to	010419		010425	to	010428	
010431	to	010487		010491	to	010497	
010531				010538			
010563	to	010582		010585	to	010592	
010623				010649	to	010652	
010650	to	010652		010684	to	010738	
010748				010753	to	010758	
010829				010832	and	010835	
011002	to	011065		011071	to	011080	
011216	and	011217		011239			
011293	to	011312		011335	to	011347	
011360				011365	and	011368	
011386	and	011387		011437			
011444	to	011489		011526			
011541	to	011546		011554	to	011574	
011569				011593			
011631	to	011640		011643	to	011647	
011708	and	011709		011723			
011756	to	011766		011806	and	011807	
011839				011861	to	011863	
011926	and	011927		011943	and	011944	
011984	to	011987		011990	and	011991	
012033	to	012048		012059	to	012061	
012073	and	012074		012113	to	012150	
012228				012240	and	012247	
012258	and	012259		012280	to	012282	
012313	to	012315		012372			
012437	to	012441		012447			
012469	to	012471		012478	and	012479	
012493				012517	to	012520	
012534	to	012537		012549	to	012550	
012576	to	012580		012592			
012702	to	012704		012723	to	012741	
012763	to	012767		012772	to	012777	
012812	and	012815		012898	to	012920	
012937	to	012940		012996			
013044	and	013085		013112	and	013113	
013138	to	013140		013168	to	013170	
013281	to	013340		013492	to	013494	
013506	to	013515		013535			
013623	to	013627		013641	to	013680	
013738				013748	to	013751	
013781	to	013795		013818			
013846	to	013848		013866	to	013869	
013883	to	013886		013900	to	013902	
013934	and	013935		013985	to	013990	
014035	to	014044		014047			
014110	to	014114		014129			
014170				014190			
014226	to	014229		014292	to	014297	
014344	to	014346		014407	to	014417	
014467	to	014470		014508	to	014512	
014611	and	014612		014634	to	014636	
014655	to	014662		014668	and	014669	
014714	to	014719		014735	and	014736	
014792				014824	to	014833	
014841				014877	to	014889	
014930	to	014934		014956	to	014962	
014995	to	015000		015002	to	015010	
015190				015219	and	015220	
015409				015490	to	015509	
015540	to	015545		015700			
015740	and	015741		015747	to	015750	
015796	and	015797		015809			
015817				015838			
015895	to	015914		015927			
015995	to	016001		016048			
016128	to	016132		016214	and	016215	
016263	to	016267		016287	to	016292	
016310	to	016315		016317	to	016321	
016436	to	016438		016446	and	016447	
016501	to	016517					

The following bonds previously called for redemption have not yet been presented for payment:

5251				1978			5747
				5745			
				1980			
920			1100	to	1103	1338	
1599	to	1606	1848	to	1858	1926	to 1928
2284			2496	to	2510	2738	to 2742
2895			3599	to	3600	4016	to 4018
5955			6042			6049	
6209			6247			6291	and 6292
6361	and	6362	6519			6507	
6618			6633	to	6635	6844	
6661			6675	and	6678	6859	
6850	to	6853	6860	to	6862	6868	and 6870
7200			7226			7284	and 7284
7452	to	7455	7511			7682	and 7683
7741	to	7744	7954	and	7955	8010	
8206			8560			8670	
8818							

Amount outstanding after 1st August 1981: U.S.$2,000,000 nominal.

THE PRINCIPAL PAYING AGENT
SOCIETE GENERALE ALSACIENNE DE BANQUE

15, Avenue Emile Reuter,
LUXEMBOURG.

GOLD FIELDS GROUP

DRIEFONTEIN CONSOLIDATED LIMITED

(Formerly East Driefontein Gold Mining Company Limited)

MERGER OF

EAST DRIEFONTEIN GOLD MINING COMPANY LIMITED

AND

WEST DRIEFONTEIN GOLD MINING COMPANY LIMITED

("West Drie")

(Both incorporated in the Republic of South Africa)

Fractional Entitlements — United Kingdom currency equivalent

Persons who were shareholders in West Drie at 30 June 1981 are advised that fractions of shares in Driefontein Consolidated Limited to which they were entitled have been aggregated and sold on The Johannesburg Stock Exchange and that the net proceeds of sale amounted to R25.50 per share, equivalent to 25.5 cents per hundredth of a share.

Warrants in payment to former shareholders on the United Kingdom Branch Register of West Drie at 30 June 1981 will be posted to the registered addresses of the persons so entitled on 20 July 1981 from the office of the United Kingdom Registrar. Such payments will be made in sterling calculated at the rate of exchange of R1.659721 to £1, this being the rate of exchange ruling on 5 July 1981 for transferable rand. The United Kingdom currency equivalent for such payments is therefore 15.00245p per hundredth of a share.

London Office:
49 Moorgate,
London EC2R 5BQ.

By order of the Board
C. E. WENNER
London Secretary

United Kingdom Registrar:
Close Registrars Limited,
803 High Road,
Leyton,
London E10 7AA.
3 July, 1981.

OLD COURT DOLLAR COMMODITY TRUST (CDRs)

The undersigned announces that as from July 15th, 1981 at Kas-Associatie N.V., Spuistraat 172 and Pierson, Heldring & Pierson N.V., Herengracht 214, in Amsterdam, div. cp. no. 4, of the CDRs Old Court Dollar Commodity Trust will be payable with Dfls. 25.38 per CDR, repr. 10 units and with Dfls. 253.80 per CDR, repr. 100 units. (Div. per record-date 22.4.1981: US$0.96 per unit.)

This dividend distribution is not subject to tax withholding at source.

AMSTERDAM DEPOSITARY COMPANY N.V.

Amsterdam,
June 30th, 1981.

INDOSUEZ

The Board of Directors of Banque de l'Indochine et de Suez, upon the proposal of Mr. Philippe Maiet, Chairman of Compagnie Financiere de Suez, appointed Mr. Antoine Jeancourt-Galignani Chairman and Chief Executive Officer on 25th June 1981 in replacement of Mr. Michel Caplain whose death occurred on 30th May 1981. The Corporate Management of the Bank is accordingly now assured by:

Mr. Antoine Jeancourt-Galignani, Chairman and Chief Executive Officer;

Mr. Gerald Dangelzer, Vice Chairman and Chief Executive Officer;

Mr. Frederic Ourbak, Senior Executive Officer Investment Banking;

Mr. Antoine Jeancourt-Galignani, 44 years old and a former Inspector of Finance, was Deputy Chief Executive Officer of the Caisse Nationale de Credit Agricole for a period of six years. He joined Banque de l'Indochine et de Suez as adviser to the Chairman in 1979 and became subsequently Deputy Chief Executive Officer from April 1980.

TRAVEL

Remember Paris
— Fiona Richmond

For a free copy of this charming and colourful letter to a friend together with our brochure on individual inclusive holidays to that beautiful city, write or phone —

TIME OFF, 2a Chester Close,
London SW1X 7BQ. 01-235 8070

ART GALLERIES

AGNEW GALLERY, 43, Old Bond St., W1. 629 6176. LIFE AND LANDSCAPE IN BRITAIN. 1670-1770. Until 31 July. Mon.-Fri. 9.30-5.30; Tues. until 7.

COLNAGHI, 14, Old Bond Street, W1. 01-491 7406. Exhibition: OBJECTS FOR A "WUNDERKAMMER." Mon.-Fri. 10-5.30.

COLNAGHI ORIENTAL, 14, Old Bond St., London, W1. 01-491 7408. GODS, GARDENS AND ELEPHANTS. Until 17 July. Mon.-Fri. 10-5.30.

DAVID CARRITT LTD. & RICHARD NATHANSON, 15, Duke Street, St. James's, W1. ALFRED WALLEY. Until 11 July. Mon.-Sat. 10-5. 01-930 8735.

MARLBOROUGH, 6, Albemarle St., W1. OSKAR KOKOSCHKA (1886-1980) Memorial Exhibition until 31st July. Mon.-Fri. 10-5.30. Sat. 10-12.30.

MATHAF GALLERY, 24, Motcomb Street, London, SW1. Tel. 235 0010. Exhibition of Arabian Paintings by Theodore Prene.

LEFEVRE GALLERY, 30, Bruton St., W1. 01-493 1572/3. 20th CENTURY WORKS ON VIEW. Mon.-Fri. 10-5.

WILDENSTEIN: Consulat — Empire — Restoration. Art in early XIX Century France. From 17th June through July. Weekdays 10-5.30. Saturdays 10-12.30. 147, New Bond Street, London, W1.

WHITECHAPEL ART GALLERY, Whitechapel High Street. 01-377 0107. To 19 August GILBERT & GEORGE—Photo-pieces 1971-80. 11-6 Sun-Fri. cl. Sat. Adm. Free. Tube Aldgate East.

DOUWES FINE ART, 38, Duke Street, St. James's, SW1. 839 5795. Jean-Luc Peroni showing Italian Old Master Drawings. Mon.-Fri. 10-5.30. Sat. 10-1 pm. Until July 11th.

CLUBS

EVE has outlived the others because of a policy of fair play and value for money. Supper from 10-3.30 am. Disco and top musicians, glamorous hostesses, exciting floorshows. 189, Regent St. 734 0557.

GARGOYLE, 69, Dean Street, London, W1. NEW EROTIC FLOORSHOW "CLOSE ENCOUNTERS" 11-3.30 am. Shows at Midnight and 1 am. Mon.-Fri. Closed Saturdays. 01-437 6455.

DIAMONDS FOR INVESTMENT

Diamond Selection Ltd. offer loose-cut and polished diamonds for investment. The following is a cross section of prices from their price guide as at 1st July, 1981.

Based on $ rate 2.06

DSL Grade	Price in £ per Carat
120/4/156	11798
120/10/146	10146
180/10/126	9583
200/25/128	8155
275/25/116	7427
350/50/106	6359
425/60/96	5825
500/150/86	3495
750/399/76	2475
1000/399/66	2136
1500/999/56	1505
2500/999/45	825

Diamonds in the range we recommend for investment have appreciated by approximately 500% since July, 1969.

DSL grade is made up as follows: Colour/Clarity/Carat
eg. 120 4 156

Make is always goodvery good. All stones are graded at Diamond Grading Laboratories using their unique measuring equipment. We also hold regular seminars and teach-ins.

Price guide and brochure with procedure for buying and selling graded and certified diamonds are available from:—

DIAMOND SELECTION LIMITED
Peterisham House
57a Hatton Garden
London EC1N 8JD
Tel: 01-405 8045

CONTRACTS AND TENDERS

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

THIRD HIGHWAY PROJECT

The Government of the People's Democratic Republic of Yemen has applied for a loan from the International Development Association, the Kuwait Fund for Arab Economic Development, and the OPEC Development Fund for the construction of the first phase of the Naqabah/Baihan road. This project aims at improving the rural road network and raising socio-economic standards. It consists of the construction of 92 km of surfaced road connecting Al-Naqabah and Nisab, via Ataq and including a branch to As-Said. The implementing agency is the Planning Unit, Ministry of Construction.

The initial stage of the Project will include the procurement of construction equipment amounting to approximately US$ 11 million (expected to be partly financed from the proceeds of the OPEC Development Fund loan). The equipment list in general terms will consist of:

- QUARRY EQUIPMENT — 150 tph crushing/screening plant, crawler drill, air-compressors, air tools, ANFO mixer and loader, front-end loaders, trucks (12 t).
- BITUMEN SURFACING PLANT — aggregate spreaders, screening/precoating plant, bitumen distributor, bitumen storage tanker, bitumen decantor, road brooms
- EARTHMOVING PLANT — tracked tractors, tracked excavators, scrapers, graders, backhoe-loaders, front-end loaders
- COMPACTION PLANT — self-propelled and drawn vibrating rollers, self-propelled multi-tyred, pedestrian vibrating and flat plate compactors
- GENERAL TRANSPORT — fuel and water tankers, flat bed trucks, low loader and prime mover, utility vehicles, mobile cranes
- AUXILIARY PLANT — generating sets, concrete mixers, concrete vibrators, water pumps, mobile welders, field service units, field workshop trailers, steam or high pressure cleaners, mobile fuel storage tanks, lighting towers, water storage tanks, water treatment equipment, survey and soils testing equipment
- WORKSHOP — service tools and equipment associated with overhaul of heavy plant and light vehicles, equipment for welding and machine shops, hand tools and consumables for all areas, electrical equipment for power distribution and lighting
- CONSTRUCTION MATERIALS — bitumen, cement, reinforcing steel, form timber/ply, corrugated steel culverts, explosives, gabion mattresses/pillows, paints and thinners, traffic signs, drilling consumables
- PREFABRICATED BUILDINGS — single and family quarters, mess facilities, workshop and store
- MOBILE EQUIPMENT CONSUMABLES — lubricating oils, tyres and batteries.

It is anticipated that invitations to bid for the supply of the above equipment will be issued in July 1981. Potential bidders who wish to receive bidding documents on issue are invited to register their interest with:

The Director of Planning Unit
Ministry of Construction
PO Box 5017
KHORMAKSAR
THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN
Telex No. 260 CAFOGA AD

TENDER FOR THE SUPPLY OF PLANT MACHINERY AND EQUIPMENT

CERAMICS FACTORY
KITWE, ZAMBIA

1 Indeco Limited intends to establish a Ceramics Factory at Kitwe, Zambia for the manufacture of Tableware, Sanitaryware, Wall Tiles and Floor Tiles and hereby invites interested companies to tender for the supply of imported plant machinery and equipment; erection of that equipment; and the mechanical testing of that equipment.

2 Tender Documents have been prepared by the appointed Project Manager/Engineer:
HENSHALL BAMFORD & PARTNERS
Ceramic House, 4 Brook Street
Stoke-on-Trent ST4 1JN

3 Tender Documents are now available and can be obtained only from Henshall Bamford and Partners at the above address. The price per set is Zambian Kwacha 100 or its equivalent in freely convertible currency excluding postal charges for weight of 1.8 kilogrammes.

4 Notices similar to this are being placed in overseas newspapers by Embassies and High Commissions located in Bonn, Paris, Belgrade, New Delhi, Rome and Tokyo.

5 The closing date for acceptance of tenders will be 16th September 1981 at 12.00 hours local time in the office of the Director of Projects, Indeco Limited.

6 Tenders will be opened on 16th September 1981 at 14.30 hours local time in the office of the Director of Projects, Indeco Limited.

7 Tenders prepared in accordance with the instructions contained in the Tender Documents are to be sent in sealed envelopes to:
Managing Director
INDECO LIMITED
New Indeco House
Buteko Place, Cairo Road
P.O. Box 31935
Lusaka
ZAMBIA

8 Enquiries regarding the Tender Documents should be addressed to Henshall Bamford and Partners.

GOVERNMENT OF YEMEN ARAB REPUBLIC

MINISTRY OF EDUCATION
IMPLEMENTATION UNIT

IDA EDUCATION PROJECT

P.O. Box 96, Sanaa

Cable: PROJED. Telex: 2405 EPIU YE

INTERNATIONAL TENDER NOTICE

Manufacturers and suppliers from member countries of the World Bank/IDA and Switzerland are invited to participate in the Tender for supplying: (i) Education Equipment; (ii) Furniture; and (iii) Vehicles for Livestock Secondary School at Sanaa under IDA credit 915/YAR.

Tender documents can be obtained from the above address upon a non-refundable payment of US$100 for Equipment package and US$50 for each of the other two packages.

Tenders will be received up to 12.00 noon (local time) on the 15th October, 1981 and will be opened in public in the Implementation Unit, IDA Education Project at 10.00 am on the 17th October, 1981.

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For further details write to:

Classified Advertisement Manager
Financial Times, 10 Cannon Street, EC4P 4BY

ARGENTINE REPUBLIC
GOVERNMENT OF THE PROVINCE OF BUENOS AIRES

PROGRAM SIDEGBA 1
CONSULTING COMPANIES REGISTRATION FOR POTABLE WATER AND DRAINS SUPPLY.

CALLS ON CONSULTING COMPANIES associated with or to be associated with Argentine Consulting Companies, to the preliminary registration in order to participate in the PUBLIC COMPETITION of methodology and prices which will take place at an early date to be so established, to HIRE the studies of technical and economic alternatives as well as those regarding prefeasibility, for POTABLE WATER AND DRAINS SUPPLY in the areas of the urban agglomeration of the "Gran Buenos Aires", Argentine Republic, not supplied at present.
Registration expires on: July 27, 1981, at 4:00 p.m.
Population to be supplied: 5,000,000 inhabitants.
Extension: 2,000 km².

PROGRAM INLAP 1
COMPANIES REGISTRATION FOR POTABLE WATER AND DRAINS SERVICES EXPLOITATION.

CALLS ON COMPANIES or ASSOCIATIONS OF COMPANIES associated with or to be associated with Argentine Companies, to the preliminary registration, in order to participate in the TENDER which will take place at an early date to be so established, to contract the reconstruction, enlargement, financing and exploitation of POTABLE WATER and DRAIN services in the area corresponding to the urban agglomeration of "Gran La Plata", Province of Buenos Aires, Argentine Republic.
Registration expires on: August 10, 1981, at 4:00 p.m.
Population to be supplied: 700,000 inhabitants.
Extension: 700 km².

PROGRAM VIGBA 1
COMPANIES REGISTRATION FOR HOUSING FINANCING AND CONSTRUCTION.

CALLS ON COMPANIES or ASSOCIATION OF COMPANIES associated with or to be associated with Argentine Companies, to the preliminary registration, in order to participate in the TENDERS which will be held during 1981/1982/1983, to contract the financing and the construction of URBAN GROUPS OF HOUSINGS FOR LOW-INCOME FAMILIES, in the area of the province, and specially, "Gran La Plata" and "Gran Buenos Aires", Argentine Republic.
Registration expires on: August 11, 1981, at 4:00 p.m.
Number of units: 100,000 houses.

Registration Bases: They must be applied for through note by mail or personally at the Secretaría de Planeamiento y Desarrollo, Calle 7 Nº 370 e (39 y 40) 1900 - La Plata, República Argentina. Télex: 31149 GOBA.

LEMBAGA LETRIK NEGARA TANAH MELAYU

NATIONAL ELECTRICITY BOARD OF THE STATES OF MALAYA
PORT KLANG POWER STATION — PHASE I
BOILER FEED PUMP CONTRACT
CONTRACT NO. 31/78/16

NOTICE OF INVITATION TO TENDER

The National Electricity Board (NEB) of the States of Malaya plans to invite tenders during August, 1981 from manufacturers for the supply, erection and commissioning of boiler feed pumping plant for Phase I of Port Klang Power Station on the West Coast of Peninsular Malaysia. Phase I of the development consists of two 300 MW gas/oil fired boilers, turbine generators, and ancillary plant.

The scope of work for the boiler feed pump contract includes:

Two—Sets of three electric motor driven variable speed pumps, each of 50% nominal rating, together with leak-off equipment, local pipework and suction strainers. Each pump will be suitable for a rating of approximately 157 kg/s at a discharge pressure of 214 barg and suction conditions of 6.6 barg and 152°C.

The plant is to be fully automatic with the majority of control equipment supplied under a separate Control and Instrumentation Contract.

A "Brief Description of Works" may be obtained free of charge from Ewbank and Partners Limited at the address given hereunder. It will be necessary for Tenderers quoting for this contract to have proven experience in the manufacture of plant of this rating and they shall have worked in countries other than that of their manufacturing base.

The procedures to be followed in obtaining tender documents are contained in the "Brief Description of Works."

Prospective tenderers are required to register their interest in writing and to pay a non-refundable documentation fee by 10th August, 1981.

Ewbank and Partners Ltd.
Prudential House,
North Street,
Brighton BN1 1RW,
United Kingdom.

SYRIAN ARAB REPUBLIC

ETABLISSEMENT PUBLIC DES EAUX DE FIGEH

INVITATION FOR SUBMISSION OF QUOTATIONS FOR SUPPLY OF DUCTILE IRON PIPE AND FITTINGS

Due to extreme urgency, Establissement Public Des Eaux de Figeh (EPEF) invites submission of price quotations for supply of ductile iron pipe and fittings necessary for Dummar-Jemraya Water Supply Project, according to following conditions:

— Quantity: 7,500 linear metre approximately ranging in diameter from 400 mm to 600 mm.
— Bid Bonds: 5% of total bid value.
— Performance bond: 10% of contract value.
— Delivery Period: 4 months from supplier's notification of L/C. Prices should be quoted in U.S. dollars and on basis of C&F Syrian Port. Shipping should be carried out by the Syrian General Authority for Maritime Transport.
— Validity Period: Quotations should be valid for selection for a period of 90 days as from closing date for submission of bids.
— Delay Penalties: 0.1% (one per thousand) of total contract amount for each day of delay, not exceeding 20% of this amount.
— Import Licence: shall be provided by Figeh.
— Funding: The goods will be financed under World Bank Loan 1241-SYR, and Arab Fund Loan 26/76.
— Submitting of Quotations: Quotations shall be submitted to the Secretariat of EPEF with all supporting documents, bid bonds and a copy of the conditions for supply duly signed by bidder.
— Forms for submissions and the conditions may be obtained by applying to:

Establissement Public Des Eaux De Figeh
Rue Al Nasr
Damascus, Syria
Telex 11312 FIGDAM, Cables: FIGDAM

— Quotations should reach EPEF by 2.00 o'clock, August 8, 1981. Any bids that reach EPEF after closing date or that do not have bid bonds shall be rejected.

Eng. Rida MOURTADA
President Director General

GOVERNMENT OF MALAYSIA

NOTICE OF PREQUALIFICATION OF CONSTRUCTION CONTRACTORS FOR THE CONSTRUCTION OF INTERCHANGES ON THE KUALA LUMPUR—SEREMBAN TOLL MOTORWAY

A. NOTICE OF PREQUALIFICATION

The Government of Malaysia intends to invite tenders during 1981 from prequalified foreign as well as Malaysian Class A registered Contractors for the construction of interchanges on the Kuala Lumpur-Seremban Toll Expressway. Construction is anticipated to commence in late 1981.

The project has been divided into two contract packages described as follows:

Package 1—Interchanges at Salak South, UPM and Kajang

The work involved in Package 1 is as follows:
(a) The construction of a trumpet interchange at Salak South with a 16-span bridge, 309 metres long of *in situ* reinforced concrete voided slab construction.
(b) The construction of a trumpet interchange at UPM with a 4-span bridge of precast concrete beam construction of total length 60.35 metres.
(c) The construction of a trumpet interchange at Kajang with a 4-span bridge of precast concrete beam construction of total length 64 metres.
(d) The reconstruction of some three kilometres of the existing Kajang-Puchong Road to a dual carriageway road with 7.3-metre wide carriageways each with 3-metre wide shoulders and a median varying in width from 3.0 metres to 10.7 metres.
(e) The construction of a 4-span bridge of precast concrete beam construction of total length 56.7 metres to carry the reconstructed Kajang-Puchong Road over the Expressway.

The estimated quantities of major items involved are as follows:

(a)	Earthworks	
	Cut	665,000 cu m
	Fill	770,000 cu m
(b)	Pavement Construction	
	Granular sub-base	43,500 cu m
	Aggregate base	28,900 cu m
(c)	Surfacing	
	Bituminous concrete surfacing	12,400 cu m
(d)	Bridgeworks	
	Voided slab construction	6,840 sq m
	Precast concrete beam construction	4,000 sq m

Package 2—Interchanges at Bangi South, Nilai and Seremban North

The work involved in Package 2 is as follows:
(a) The construction of a trumpet interchange at Bank South with a 4-span bridge of precast concrete beam construction of total length 60.35 metres.
(b) The construction of a partial cloverleaf interchange at Nilai making use of the existing underbridge at the present T-junction.
(c) The construction of a modified diamond with loop interchange at Seremban North with a 4-span bridge of precast concrete beam construction of total length 60.35 metres.

The estimated quantities of major items involved are as follows:

(a)	Earthworks	
	Cut	373,000 cu m
	Fill	344,000 cu m
(b)	Pavement Construction	
	Granular sub-base	22,100 cu m
	Aggregate base	14,400 cu m
(c)	Surfacing	
	Bituminous concrete surfacing	5,900 cu m
(d)	Bridgeworks	
	Precast concrete beam construction	3,100 sq m

Civil Engineering Contractors with appropriate resources and experience who are interested in tendering for this project are invited to apply in writing for the prequalification questionnaire to:

Pengerusi,
Lembaga Lebuhraya Malaysia,
Bangunan Yayasan Syed Kechik,
Bangsar,
Kuala Lumpur,
Malaysia.

Foreign firms are encouraged to form a joint venture with suitable registered local contractors for this undertaking.

The contractor may apply for prequalification for one or both of the two contract packages but the prequalification criteria will be based upon the contractor's capability to perform accordingly.

Applications for prequalification will be considered only from principals who are prepared to undertake responsibility for carrying out the whole of the works of a contract package. Applications from agents, prospective subcontractors, or suppliers of materials will not be considered.

Prequalified contractors will be required to provide a Tender Bond in an amount equal to 5 per cent of the total tender sum at the time of tendering. The successful tenderer will be required to furnish the guarantee of a Bank established in Malaysia to an amount of not less than 5 per cent of the Contract Price. Prequalified contractors will make their own arrangements to collect the Tender Documents from the office of the Pengerusi, Lembaga Lebuhraya Malaysia.

Applications for prequalification are to be in the English language and, together with all the required information supported by the necessary documents, should be sent to the address below in a sealed envelope marked "Application for Prequalification for the Construction of Interchanges on the Kuala Lumpur-Seremban Toll Expressway":

Pengerusi,
Lembaga Lebuhraya Malaysia,
Bangunan Yayasan Syed Kechik,
Bangsar,
Kuala Lumpur,
Malaysia.

THE CLOSING DATE FOR RECEIPT OF COMPLETED PREQUALIFICATION QUESTIONNAIRES IS 15TH AUGUST, 1981.

INTERNATIONAL TENDER

CONTRACTING OF TWO NEW BUILDINGS
(Liner Multi Purpose Vessels)

The President's office of the United Republic of Cameroon is tendering the delivery of two vessels on international basis for account of Cameroon Shipping Lines S.A.

The tender documents can be obtained at the office of the Presidence de la Republique, Secretariat General (Direction Centrale des Marches) as from 15th June 1981 on presentation of a receipt for payment of 250.000 FcFa to the Cameroon State Treasury.

Offers must reach the:

Presidence de la Republique—Secretariat General Direction Centrale des Marches, Yaounde/Cameroon at the latest by 20th July 1981—17.00 hours local time by registered mail with confirmation of receipt, or deposit against receipt.

The envelopes will be opened by the:

Commission Centrale des Marches in the Conference Room of the Secretariat General de la Presidence de la Republique during a non-public meeting.

Yaounde, June 1981.

REPUBLIQUE DE DJIBOUTI

Unité — Egalité — Paix

APPEL D'OFFRES INTERNATIONAL DE PRE-QUALIFICATIONS

Laiterie de Djibouti

*Pre-qualification offers can be written in English or French

Contracts and official documents will be established in French language

Aux entreprises intéressées à la réalisation clé-en-main, tous corps d'état de la laiterie de Djibouti.

Capacité: lait reconstitué 20,000 lt/j.

Projet financé par le FOND KOWEITIEN POUR LE DEVELOPPEMENT ECONOMIQUE ARABE.

Seules les entreprises disposées à faire une *offre complète* comprenant les fondations, les VRD (voies et réseaux divers), les bâtiments (construction métallique pour les bâtiments industriels et construction conventionnelle pour 4 logements) ainsi que tous les équipements de laiterie et de production des fluides auxiliaires seront prises en considération.

L'offre de prequalification doit contenir notamment:

— une déclaration d'intention de soumission
— un extrait du registre du commerce ou de la chambre du commerce indiquant les noms du responsable de la société, le genre de société et le capital
— le chiffre d'affaires des 3 dernières années
— les références générales
— les références dans le domaine particulier (industries-alimentaires)
— les pré-qualifications de chacun des sous-traitants proposés.

et devra être remise en 2 exemplaires, au plus tard le 31 juillet 1981 à

L B F INGENIEURS-CONSEILS
ET ARCHITECTES S.A.
Avenue de la Gare 12
CH-1110 Morges

TECHNOLOGY

EDITED BY ALAN CANE

Intelligence for data systems

AFTER TWO years of development in the UK Burroughs has launched what it claims to be the "first intelligent, fully programmable data collection system for industrial applications."

Equipped with 96,000 words of random access memory, the MT 1500 is controlled by an Intel 8086 microprocessor.

The availability in addition of read only and electrically alterable read only memory means that, in addition to programming the terminal to precisely meet the user's needs, it has also been possible to instal automatic validity checks so that only clean, formatted data is sent to the mainframe computer.

The MT 1500 can be provided with various input arrangements including optical character recognition, bar code reading wands, magnetic card readers and keyboards, in addition to conventional Hollerith card/badge readers.

Wall or desk-top mounted, the terminal has a 40 character single line display. This can be used to provide operator guidance, tell what he has entered and also display data from the mainframe.

Burroughs emphasises that because of the intelligence and memory in the terminal it can be tailored to almost every industrial data collection application.

Reliable, standard-form data can then be collected by the mainframe on which a production control program can be run to provide management with an up-to-the-minute account of what is going on on the shop floor.

Burroughs identifies a dozen places at which the terminal can be applied, starting with recording of goods inwards data and finishing with shipping. At work centres, the MT 1500 can be used manually, with keyboard entry, to record manufactured product details or automatically using pulses generated by the machines themselves.

In the stores, electronic rather than paper records can be made of what goes on to the shelves, and what is issued for production.

BECAUSE this new data collection terminal from Burroughs has more "brain" than most, it can be tailored to almost any industrial application.

Going one better to change tools on a machining centre

KEARNEY and Trecker Marwin of Brighton has gone one better than conventional builders of multi-tool computer numerically controlled machines.

Its new "Multiheadchanger" does not change individual tools for different tasks, it changes multi-spindle heads.

And just like a conventional single spindle machine a transfer mechanism transfers heads from the magazine to the spindle drive.

According to KTM the new machine is as flexible as a conventional CNC machining centre: "It can mill, contour and be quickly programmed to change from one job to another.

"At the same time," the company claims, "it introduces to multi-spindle work, the four freedoms of movement associated with a machining centre—X, Y and Z libera axes and a rotary axis."

The company argues that the new machine is ideally suited to tasks such as setting up production systems to create, say, engine cylinder heads in greatly different batch numbers.

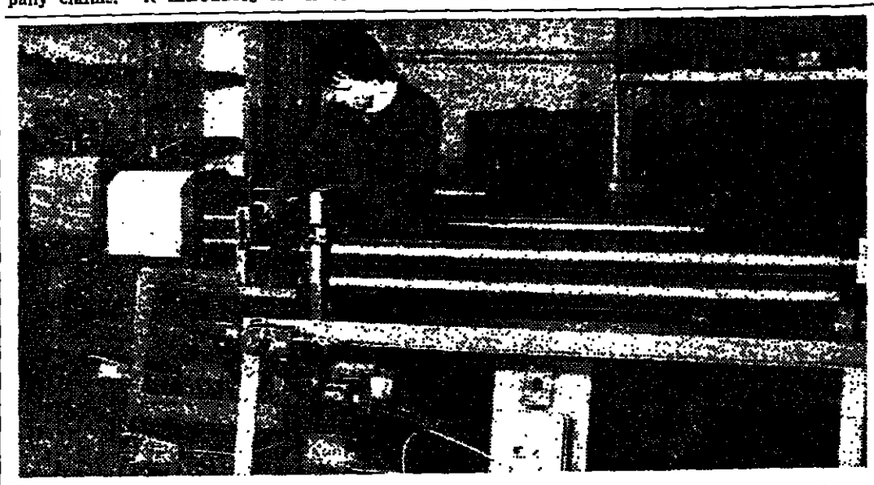
This is important in the automobile industry where the maintenance of spares levels for up to 10 years after a model has been dropped from the current line has always been a problem.

The conventional solution is to keep expensive transfer line in commission for use on a few days every six months.

KTM says that the most economic solution is to utilise the freedoms of movement and a relatively simple multi-head.

Using the X-axis movement, the head can be passed in front of the spindle to drill, bore, tap and contour mill at each cylinder. This permits relatively simple and consequently low cost heads to be used, thereby minimising tooling costs.

For larger production runs, successively more complicated tooling can be used ending with linked multi-head machines performing different simultaneuos operations as in a conventional transfer line. More about the Multiheadchanger on 0273 507255.



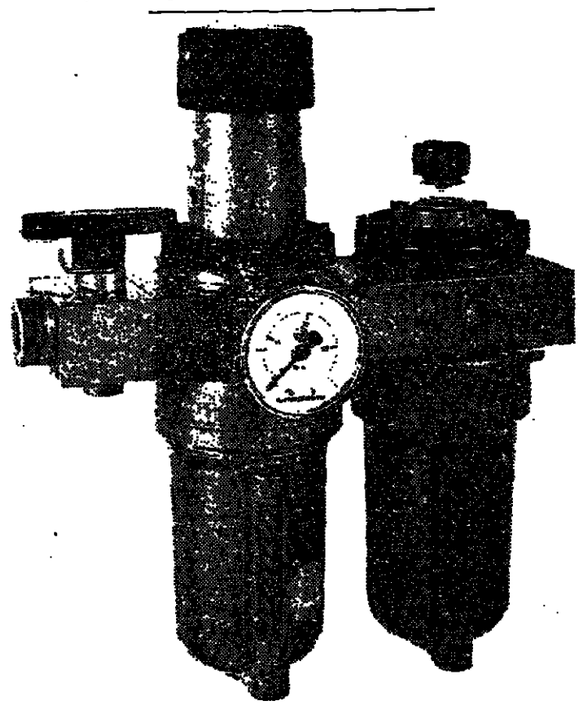
New range for pinch bending

ROLSAN ROLLERS of Stourport on Severn has introduced a new range of Initial Pinch Bending Roll (IPBR) Machines. Aimed at maximising shop floor space the new range incorporates the power transmission unit within the frame of the machine.

The range covers production of pipes and tubes up to two metres long. The shortest standard unit is 600 mm but if required, shorter machines can be supplied, the company states. Sheet metal from 0.5 mm to 5 mm can be accommodated.

Operation is simple, Rolsan says. Sheet metal is fed into the pinch rolls which are driven by Ch D2 Leroy Somer geared motor units via a gear train. As the sheet metal is fed through, a third roller at the back curls it into the basic tube or pipe diameter. Subsequently, it is seam welded.

The machine is operated by a foot control. The shaped cylinders are removed from the rollers by releasing the outrigger bearing and turning the top roll counter balance handle which raises the top roll clear of the end frame and enables the tube to be withdrawn endwise. More on 0242-517701.



IMI Norgren says that its Series 13 Mark III Olympian plug-in system of compressed air processing equipment for ¼-¾ pipe systems will enhance performance, providing better water removal efficiency for filters and filter regulators improved diaphragm construction for regulators and filter-regulators and a new optional orientable metal bowl with sight glass for filters and, especially, for lubricators. More on 0608-61676.

Microcircuit for central heating

HONEYWELL HAS its own custom-designed microcircuit in the latest residential central heating controller it is offering, the ST699C.

Timing motors, mechanically operated contacts and similar items have been done away with and the unit provides two electronically precise "on" and "off" times every 24 hours to switch domestic central heating, hot water, or both, on and off as necessary.

The unit, which measures only four inches square by 1.5 inches deep, has a permanent liquid crystal clock display which, by simple movement of a slider wil also show the selected on and off times for checking or re-setting. Timing is altered by simple button depression to roll the times back and forward.

Little current is consumed by the timer and a built-in battery ensures that the device wil go on working for a week if the mains should fail. More on 0344 24555.

Westinghouse announces IBM conversion

A CONVERSION system which, states the company, eliminates almost all manual work in a DOS to OS system conversion for IBM users is announced in the UK by Westinghouse Management Systems SA.

Known as Focus it converts DOS COBOL to OS COBOL, DOS JCL to OS JCL and preprocesses Assembler and RPG 11. Westinghouse adds that Focus can also build complete OS Jobstreams with relevant operator re-start instructions from DOS JCL and program information. It runs in an OS, VS1, MVS or VM environment and needs about 80K of storage.

Jig help for disabled

CAMPCLAMP has developed a flexible universal drilling jig for constructors. It is hoping to take the idea further into provide practical aids for the disabled. The idea, in its simplest form, won a prize in the 1979 Young Engineer of the Year competition. More on 051-480 3777.

Torque wrench

DESOUTTER has introduced a range of ⅜ ins and ½ ins square drive torque controlled angle wrenches for critical joint and confined space fastening. There are two types with speed options.

POINTERS

Drimax aid

WITH THE object of exploiting the surface chemical properties of aqueous slurries to bring about, big reductions in filter cake moisture content, Allied Colloids has added Drimax 1938 to its range of Drimax filter cake dewatering aids.

The chief area of application, the company says, is vacuum filtration, but other uses include filter pressing, free gravity drainage and centrifugation. Drimax 1938, according to Allied Colloids, has demonstrated a reduction of filter cake moisture of as much as 28 per cent at a fraction of the cost of thermal drying. Further information on 0274-671267.

Detector

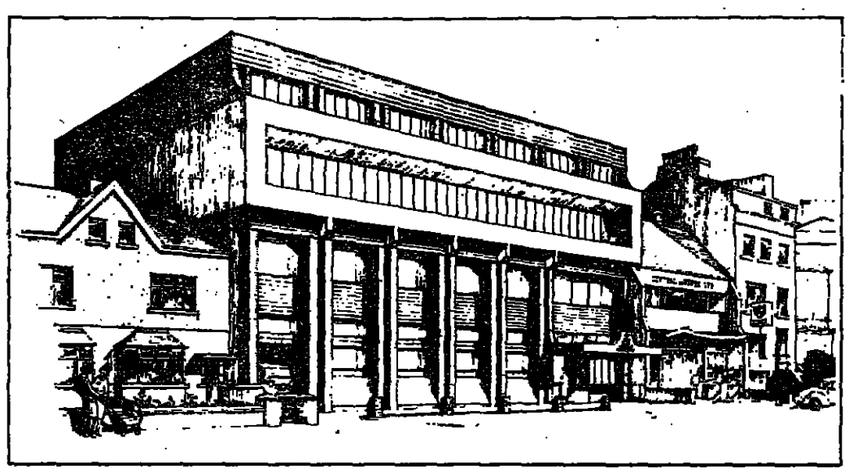
THE HAND-HELD Type 8902C Ultransonic Leak Detector and Steam Trap Tester is described in a leaflet issued by Dawe Instruments. Details include the device's ability to detect gas or steam leaks through an orifice as small as 0.25mm at a pressure of less than 0.7kgf/cm² at 4.5m range and to detect the condition of open or leaking steam traps. More on 01-992 6751.

Meanwhile, Dawe has started commercial production of a high pressure steam leak locator known as the Leakator, Type 8903A which was developed by the Central Electricity Generating Board.

Mortar

DESIGNED for use in conjunction with a wide range of electric rotary power hammers, the Rex Mortarchisel is available from Garrison Dales. The company says that the tool will assist the raking out of mortar joints in brickwork without risk of damage to the bricks. More on 0905-28224.

BUILDING AND CIVIL ENGINEERING



New island post office

WORK IS to start shortly on the new headquarters of the Isle of Man Post Office Authority in Circular Road, Douglas, near the main sorting office. Parkinson of Braddan, whose tender was the lowest of seven received, has been awarded a £1.57m contract. The building will accommodate the Authority's administrative departments and the philatelic bureau. Counter services are to continue at the Head Post Office in Regent Street, Douglas.

Delving into Midland limestone

OLD LIMESTONE workings in the West Midlands are to be investigated by Ove Arup and Partners on behalf of the Environment Department and the local authorities of Dudley, Sandwell and Walsall, and the West Midlands County Council.

First task will be to assemble a data-bank on the workings for an initial study by civil and mining engineers, geologists, archaeologists and photogrammatists.

In parallel, specialist engineers will make a study in which workings will be classified according to type, nature, quality of surrounding rocks and what is known about former collapse.

Limestone was mined in the Midlands by the Romans, but it was exploited mainly in the mid-19th century to supply the iron industry with limestone for fluxing with iron ore. Seams within the ancient Silurian rocks were quarried and mined. Further information from 01-636 1531.

Filling the hole in the ground

BUILDING of a £36m International Conference Centre on Westminster's Broad Sanctuary site is scheduled to begin next April following an announcement by Mr Michael Heseltine, the Environment Secretary, that he had accepted an offer of £32m from the Pearl Assurance Company towards the overall cost.

The main contractor is to be Bovis, who will manage the project, and completion is due in 1986. The site—one of London's biggest unused holes in the ground—has been described by Mr Heseltine as "a shameful eyesore."

Looking ahead, Mr Heseltine said that the building would provide facilities for international governmental conferences. While supplementing those already offered for commercial purposes, it would also be available for private hiring.

Marine borings

BEAVER DREDGING of Toronto has received a $7.5m contract from the Lower Churchill Development Corporation of Canada to carry out marine borings and surveys in the Strait of Belle Isle, Newfoundland. The purpose is to confirm the feasibility of trenching a transmission cable across the 10-mile wide strait as part of the client's project to develop new hydroelectric power generating facilities in Labrador.

The two-month site work will be managed by Osiris-Cesco, a sister company of Beaver Dredging and co-member of international contractors. Royal Westminster of the Netherlands.

Laminated board

JABPERL, a new laminated roof insulation board suitable for insulating any type of profiled metal, concrete or timber flat roof decks on new and existing buildings, is the result of close co-operation between Vencel Resil and Isocrete Group Sales.

The Jabperl panel comprises Isocrete's Heraperm Perlite insulation board, factory bonded to varying thicknesses of VR's Jablite EPS insulation board. The companies say that the combined qualities of their materials provide good dimensional stability, high fire resistance and excellent insulation values.

Asphalt at Heathrow

PART of the taxiway and holding areas at Heathrow Airport are to be overslabbed under a £2.4m contract awarded to Wimpey Asphalt by the British Airports Authority.

Working at night Wimpey will phase the work so that flying can continue, although the airport will be partially closed between 9.30 pm and 7.30 am. The work is expected to end by Christmas.

Other Wimpey contracts: A £955,000 upgrading of 62 flats for Manchester Corporation; a £711,000 contract—also in Manchester—for modernising 52 council houses and construction in Plymouth of 136 homes, valued at £2.35m.

Hospital building

SHEPHERD CONSTRUCTION has secured hospital building contracts totalling £11.6m. A new ward and theatre block, together with outpatients department, comprises Phase 1 of the Lincoln County Hospital project, while in Wolverhampton it is to build a large extension for New Cross Hospital.

Another £345,000 contract concerns construction of additional student accommodation at St Aidan's College, University of Durham.

When ready in about a year's time the extension—designed by Faulkner-Brown Hendy Watkinson Stonor—will provide 42 study-bedrooms on two floors with laundry and pantry facilities and a tutors' flat.

Ipswich bypass contract

COSTAIN Civil Engineering is to build the section of the Ipswich Bypass from the Orwell Bridge eastwards to the A45 near Seven Hills under a £10.2m contract from the Department of Transport. This is the first of three main contracts to be awarded for the Ipswich Southern Bypass following last year's public inquiry. Costain expects to complete by October next year.

Meanwhile, the Transport Department has announced the preferred route for a bypass of Bromham in Bedfordshire. This starts on the A428 next to Bromham hospital, runs south to the A422, swings east to the Box End Road (A5134) and rejoins the A428 at Cold Lane, a distance of about 2.5 miles. Bromham lies on a route connecting the Haven Ports with the Midlands as well as providing a link to Milton Keynes.

Roundabout

REALIGNMENT of about two km of the Maidstone-Sheerness road A249 is to be undertaken by Mears under a £1.6m contract from the Kent County Council. The work includes a new roundabout to the west of Sittingbourne at the junction of the A249 and the A2.

Construction consists of about 900 metres of flexible carriageway on embankment, 1100 metres in cutting with widths varying between 7.3 metres and 9.3 metres. Footways, drainage and lighting are included.

The contract brings the value of roadworks awarded to Mears in recent months to more than £4m.

Corrall work

CORRALL CONSTRUCTION has received three contracts totalling more than £1.75m, involving £1.05m improvements and repairs to 55 Hillingdon homes, £200,000 improvements to 49 Croydon and Sutton homes and a £468,937 conversion and modernisation on a Church Army Housing Estate in south-east London.

NEWS IN BRIEF

● Uni-Green, an interlocking cellular grid paving system for grass and concrete has been developed by BDC Concrete Products. Each unit measures 560 mm x 280 mm x 85 mm thick. Full and half edging units are also available. More on 0633-52181.

● Acrow (Engineers) has introduced Speedform, a reusable system of supporting in-situ concrete floors. Made of aluminium it gives a 50 per cent weight saving over steel.

● A DM 45m cement plant with a 3,000 tpd capacity is to be built in India by Krupp Polysius AG, Beekum, for Coromandel Fertilisers of Secunderabad. It will include a roller mill for difficult-to-grind Indian coal.

● Hewgate of Aylesbury says that the 60,000 sq ft warehouse it is building under a £1.8m contract for Quaker Oats at Southall has moved into its second phase.

● One of three desalination units, and the sea water pretreatment for the three units which are for a research and development project in Kuwait are to be built under a DM 10m contract by Buckau-Walther AG, Grevenbroich.

● Multibeton (UK) is installing cost-saving low temperature underfloor warm water heating in British Telecom's new computer centre near St. Albans. Under the £100,000 contract waste heat from the air conditioning plant will be re-used.

● Amey Roadstone has reduced from six to four the number of its regions which produce aggregates, coated stone and Premix concrete.

● The Commission for the New Towns is to pay £700,000 to Higgs and Hill to build 13 factory units on the Earlstrees Industrial Estate (East) in Corby.

● BarFab Reinforcements is the name adopted by the new steel and wire company which evolved from Phoenix 1 discussions and which is jointly owned by the GKN Group and British Steel Corporation.

● National Coal Board has ordered a £1.1m "showcase" boilerhouse from Ashwell Scott building services contractors for its Stanhope Bretby, Staffordshire, mining research and development establishment.

● Marchesi Holdings of Dunstable is supplying a Danish timber house for Hull builder Yorkshire and Lincolnshire (Homes). It is expected to sell for more than £100,000.

● Motorway re-surfacing contracts worth about £3m have been won by Tarmac Roadstone (Northern) involving the M1 at Chesterfield and the M62 in Humberside.

● Buckton Contractors is to build the first phase of a new road and site development in the North Preston area for the Central Lancashire Development Corporation.

● E. C. Harris and Partners are quantity surveyors for the £289,000 extension of the clinical research wing of the chest unit of Kings College Hospital Medical School at Denmark Hill, south east London.

● Vaperlite is a new roof insulation board introduced by Vapotherm (UK) to meet more stringent requirements for strength and fire resistance. It is a composite of polyurethane foam and perlite board.

● Latest stage in the development of Stakehill Industrial Park by John Finlan with Royal Insurance is almost complete with 175,000 sq ft of single storey industrial and warehouse units ready for letting.

● Steelwork for new TV studios being built at Maidstone for Television South, new franchise holders for the southern region, will be supplied and constructed by Graham Wood Structural, a member of the Amsteel Group.

● R. M. Douglas has completed a £2m transport and maintenance centre for Wincanton Transport at Darlaston, West Midlands.

● A section of the ICI plant division's complex at Yalding, Kent, is to be extended under a £400,000 contract awarded to G. E. Wallis and Sons. Engineers for the two-storey project are Bruce, Webb and Partners of Rochester.

● Bison Concrete is to supply precast concrete flooring valued at more than £104,000 for Medina Borough Council's £2m housing development at Newport, Isle of Wight.

● Atkins Inspection Services and Atkins Laboratories of the W. S. Atkins Group have gained contracts worth more than £3m in connection with the building of a £200m gas fractionation plant at Mossmorran in Fifeshire, Scotland. The plant is being built by the Ralph M. Parsons Company on behalf of Shell Exploration Production.

● Myton, a member of the Taylor Woodrow Group, is to refurbish three floors at 85, Gracechurch Street, London, EC3, owned by The Pension Fund Property Unit Trust, under a £1.2m contract.

● British Gas is to pay William Press and Sons £2.5m under an installation contract at Dynevor Arms, Merthyr Tydfil, for 10,000 metres of carbon and stainless steel pipework and specialist equipment. Protective coatings will also be applied.

Warrington company secures £12.33m

A MOTORWAY in Shropshire, sewage treatment in Northants, advance work in Cheshire, civil works in Lincolnshire and in Somerset, and a pump station in Nottinghamshire represent new work valued at £12.33m for A. Monk of Warrington.

A £11.8m Transport Department contract involves an eight-km section of Telford motorway M54 and includes construction of a grade separated interchange with the A464 trunk road and the proposed Telford link road.

At Great Billing, the Anglian Water Authority has ordered a contract for Stage 3B of a sewage treatment works extension, while at Appleton Thorn near Warrington, Monk is to demolish buildings and provide a new pumping main and landscaping under an Environment Department contract. More on 0925-812000.

Ontario Hydro deal

GEORGE WIMPEY, Canada, is to prepare a site at Atikokan under a £2m contract for Ontario Hydro as part of a £5m five-contract series of awards. Other contracts include provision of underground water and electricity services, drainage and waterworks at Vaughan. In Alberta, work is under way for a £900,000 site preparation for Dow Chemical and the Alberta Gas Ethylene Company.

Why multinationals may have to face a more muscular Third World

Arnold Kransdorff examines the work of the UN Centre on Transnational Corporations

TO SIT across the negotiating table from a multinational company can be an intimidating experience — especially for a greenhorn. With their vast trans-national experience, and heavy-weight legal support, multinationals can frequently tie-up contracts which the other party soon considers less than fair.

Such is the problem facing many Third World countries, whose emergence as industrial nations usually necessitates a measure of involvement with outside companies which are often more sophisticated — and shrewd — than themselves.

Most of the people who negotiate with multinationals on behalf of Third World countries "are pretty bad," says Gustave Feissel. "In most cases the person at the top, usually the chief minister, is the only competent individual. Below him few people are any good and one man cannot do everything on his own."

Feissel, a U.S. national who was educated in Paris and New York, is unusually well-placed to make such a judgment. He runs a United Nations programme which has provided many developing countries with advice on how to negotiate with multinationals — free of charge.

Feissel's programme forms part of the activities of the UN Centre on Transnational Corporations, which is better known for the work it is doing on trying to get universal agreement — still at least a year away — on a Code of Conduct for multinationals and the host countries in which they operate.

The Centre has been mandated to provide governments with technical co-operation in an effort to strengthen their ability to deal with multinationals.

"Unfortunately governments wait until a quarter to midnight to decide that they need us," says Feissel.

Two-man company

He quotes the extraordinary case of a Third World country in Asia whose government wanted to investigate whether it had any petroleum and/or gas reserves that could be exploited.

The Government had been approached by a U.S. company with a suitably impressive New York address. After a session of negotiation, a contract was drawn up giving the company exclusive exploration rights.

In the event the company, which turned out to be nothing more than two individuals in a Fifth Avenue office, subsequently sold the contract to a third party, over whom the host country had no choice and little control.

According to Feissel this is not an isolated incident.

Such "contracts," drawn up in haste and without proper legal advice, are widespread across the developing world, he claims.

The type of contract drawn up is frequently inappropriate, he argues, the financial arrangements are invariably unfair, and the host country's control over the project (and its implications) is often weak.

This can obviously lead to bitterness between the parties —and could be one reason why there is so much antipathy from developing countries towards the multinational company.

The scope of the UN Centre's technical co-operation programme covers the provision of advice and the organisation of training programmes. The advice can cover the formulation of policies, laws and regulations affecting foreign participation, as well as assistance in dealing with specific arrangements with multinationals.

These can include a wide range of subjects—ownership and control, transfer of technology, transfer pricing, joint ventures, licensing arrangements, management contracts and production sharing agreements.

The Centre's advisers are not permitted to assist at the negotiating table but staff back-up can be provided in preparation for negotiations with multinationals.

In terms of the volume of business between developing countries and multinationals the Centre's activities in this area barely scratch the surface, but Feissel is confident that the service will grow rapidly. Since the technical co-operation scheme was started nearly four years ago the Centre has dealt with 188 advisory projects from 56 countries.

Nearly a third—55—were completed or initiated during the last reported year to March 1980. Of these, nearly a half were in response to requests from African countries, 17 from Asian countries, 12 from South American countries and two from one European country.

To carry out the work, the Centre, which occupies modest accommodation away from the UN headquarters in New York, employs seven full-time advisers and another eight consultants on retainer. These are supplemented by a group of high-level experts who are engaged on an ad hoc basis.

Examples of recent projects related to policies, laws and regulations include missions to two African countries. In one case the Centre's advisers made recommendations for the more effective control of that country's mining interests and in the other, assistance was given to evaluate the possible incidence of transfer pricing in selected sectors.

In the latter case, the advisers also analysed existing tax laws and regulations, reviewed their adequacy in controlling abuses and made appropriate recommendations for monitoring transfer pricing practices.

"Now don't commit yourself to anything"

On specific projects, the Centre has, for example, recently undertaken several major missions to a poor Asian country where advisers have helped finalise the development of a sponge iron project; assisted in negotiations for joint ventures in the pulp and paper and fertiliser and petrochemical industries; and helped in the choice of alternative project financing in the development of a country's food industry.

An indication, perhaps, of the success of these missions is contained in an annex to the Centre's last annual report, which contains a list of responses from Governments to specific co-operation programmes.

One such example, from a senior civil servant of an unnamed country, says: "Your Centre's assistance has been of enormous value to my Government. Without the assistance you have provided, we would have been at a serious disadvantage in negotiations. By ensuring parity in the processing of information, you made it possible for us to be assured of obtaining fair and reasonable terms."

The other arm of the Centre's technical co-operation programme — training — consists of organising workshops on the regulation of, and negotiation with, multinationals.

The workshops also deal with specific sectors, such as mining or fisheries, and specific technical issues, such as disclosure and transfer pricing. They are organised at regional or national levels and are held, usually, at venues in developing countries.

Over the past four years the Centre has held more than 43 training workshops attended by some 1,700 participants from more than 75 countries.

The Centre's technical co-operation services, which come free to UN member governments, are financed mostly from voluntary contributions and moneys diverted from United Nations Development Programme sources. To date some $3.8m has been received or pledged from six countries — West Germany, The Netherlands, Norway, Sweden, Switzerland and the UK.

The cost of advisory services ranges from $4,000 to more than $20,000 while the cost of training workshops ranges from $15,000 to $70,000.

Corporate lowdown goes on file

Apart from its technical co-operation services and the work it is doing on a Code of Conduct, the United Nations Centre on Transnational Corporations is preparing corporate profiles on a selection of multinational companies.

This is another area where it believes that it can be of help to Third World—and even developed—countries in dealing with large outside corporations. So far more than 24 governments have requested profiles from the Centre.

The Centre believes that from a negotiating point of view, most governments are at a disadvantage because they do not have immediate access to all the relevant historical information and facts about a particular multinational.

It maintains that while this type of information is probably available from a variety of sources such as Press cuttings, annual reports, brokers' reports and financial information services like Dunn and Bradstreet, there is no one document available that gives an authoritative and comprehensive corporate profile of a multinational that is geared to the requirements of a government.

It is the Centre's intention to produce such profiles on around 500 of the world's major multinationals—and update them every two years.

The decision to produce corporate profiles on various multinational companies is a relatively recent one for the Centre and follows a controversy over previous information-gathering activities, when multinationals complained that they were not given the opportunity of cross-checking information and that many facts being disseminated by the UN were incorrect.

Rana Singh, a former administrative head of the civil service in Assam, India, who now runs the Centre's Information Analysis Division, concedes that this criticism had a "degree" of validity.

"There was a belief that the collected data was inaccurate and downright hostile to the multinationals," he says. "We also concluded that the system didn't meet the requirements of Governments and decided on the corporate profile approach."

Although the Centre will continue to use the data bank as a source of information, Singh stresses that all information and facts will have to bear scrutiny by the relevant multinational before being used, although the Centre reserves the editorial right to reject any of their complaints.

So far Singh has about 225 corporate profiles in various stages of completion and verification. He says that the Centre has had a satisfactory response from about 90 per cent of the companies.

He hopes to complete about a hundred profiles a year until the figure of 500 is reached—"which would represent a large cross-section of the big multinationals. We don't want to go beyond that because of the updating problems," he adds.

Each profile is about 50 pages in length (using single spacing) and includes background information, details of management, products and markets, the company's foreign operations and geographic distribution and financial information such as sources and uses of funds. In some cases the document also assesses trends in products and markets and gives a review of the company's technology objectives.

Singh describes the profiles as "the most comprehensive compilation of information on particular companies geared to the requirements of host countries."

He estimates that it takes between three and six months to prepare a profile and another three to six months to get approval from the companies.

Business courses

Developing Women, Uxbridge, Middlesex. July 16-17. Fee: £165. Details from The Secretary, Management Programme, Brunel University, Uxbridge, Middlesex, UB8 3PH.

The Causes and Symptoms of Company Failure, Bradford, July 23-24. Details from Course Secretary, University of Bradford Management Centre, Heaton Mount, Keighley Road, Bradford, West Yorkshire, BD9 4JU.

Manufacturing/Production Control Concepts, Worthing, July 27-28. Fee: £175 (plus VAT). Details from Course Registrar, MSS Computer and Business Consultancy, MSS House, 54 Chapel Road, Worthing, West Sussex, BN11 1BE.

Research for Profitability, Amsterdam. August 23-27. Fee: SFr 640 members, SFr 790 non-members of the European Society for Opinion and Marketing Research. Details from ESOMAR Central Secretariat, Wamberg 37, 1083 CW Amsterdam, The Netherlands.

Leasing Seminar, Brussels. August 26-28. Details from Management Centre Europe, avenue des Arts 4, B-1040 Brussels, Belgium.

Developing New Products, Maidenhead, Berkshire. July 19-24. Fee: £380 (plus VAT) members, £395 (plus VAT) non-members of the Institute of Marketing. Details from The College of Marketing, Moor Hall, Cookham, Maidenhead, Berkshire. SL6 9QH.

International Financial Management Seminar, Geneva. August 17-28. Fee: SFr 5,500. Details from Centre d'Etudes Industrielles, 4 chemin de Conches, CH-1231 Geneva, Switzerland.

Executive Project Management, Scotland, August 6-7. Fee: £345 (plus VAT). Details from AMR International, 6-10 Frederick Close, Stanhope Place, London W2 2HD.

Working and Living Abroad, London, August 12. Fee: £42 per person, £67 per couple. Details from The Short Course Unit, Polytechnic of Central London, 35 Marylebone Road, London NW1 5LS.

Microprocessors - Management Appraisal, Worthing, August 13. Fee: £110 (plus VAT). Details from Course Registrar, MSS Computer and Business Consultancy, MSS House, 54 Chapel Road, Worthing, West Sussex, BN11 1BE.

LOMBARD

The coming U.S. recession

BY SAMUEL BRITTAN

IN SEVERAL recent articles I have underlined what I saw as the main contradictions in the Reagan game plan for the U.S. economy. The Administration's documents — and even more its early sales talk — assumed slow but positive economic growth this year followed by a take-off into rapid growth from 1982 onwards. This was supposed to be combined with a tough monetary policy and a pronounced steady fall in the inflation rate.

Both prognoses could not be true simultaneously. Hardly any modern inflation of near-double digit rates has been reversed without an intervening recession — *sometimes politely* called a "stabilisation crisis."

The recession does not have to continue all the time that inflation is being reduced. Nor is the extent of the recession proportional to the size or the speed of the reduction. I leave that kind of arithmetical scare-mongering to the House of Commons Treasury Committee. *But it is still unfortunately* almost impossible to change inflationary expectations without at least an initial shock to output and employment.

I am of course talking about a genuine reduction in inflation, not a cosmetic reversal of the distortions in the U.S. Consumer Price Index which took the headline figures up to a totally artificial 13 per cent last year, compared with an underlying *rate of around 10 per cent.*

Contradiction

But until recently it was unclear whether the contradiction would be resolved, as Dr Henry Kaufman of Salomon Brothers once feared, by the financial markets outwitting the Fed in manufacturing new *monetary assets and inflation* continuing merrily, or by a recession. It is now pretty clear that the recession alternative will be seen.

Signs of softness are multiplying in the U.S. economy, particularly in the auto and housing markets. The high *dollar exchange rate is beginning*, in a way familiar in the UK, to reduce demand for American goods and to squeeze profit margins. The savings and loan associations which borrow short and lend long for home *ownership are under extreme* pressure. Factory payrolls, *working* hours and other labour market indicators have all weakened.

But above all it is the Fed's behaviour that has made recession nearly certain. As Mr Anthony Boeckh has remarked in the *Bank Credit Analyst*, the Fed has responded to criticism of its credibility by "*permitting* MIB (its main monetary target) *to fall below its lower target* band while reacting aggres*sively to any overshooting.*" Above all, real interest rates of 10 per cent cannot continue for so many months without puncturing economic activity.

The abrupt termination of the 1980 recession after one quarter always seemed too good to be true; and the true downturn is *turning* out to be, as some of us suspected all along, W-shaped or double-bottomed.

Interest rates

The prospect is not necessarily a disaster for Europe. A period of distress corporate *borrowing may keep U.S. short*-term interest rates high for a while longer; but it would not be surprising to see nominal short term interest rates in *single figures before the end of* 1981.

There may then be a sufficient swing in interest rates *relative to the market's view of the norm* to strengthen European currencies against the dollar after their *recent* fall. As European central banks tend, despite their *lip service* to monetary targets, to follow an *interest* rate policy related to the exchange rate, the prospect is for lower interest rates on this side of the Atlantic too.

British policymakers would however be well advised to allow the running to be made *by the Germans. There is now* much talk about the prospect of a substantial further fall in the pound against the D-mark. If that happens it will be very important to make sure that this is balanced as *far as possible by a recovery* of the pound against the dollar. *This* is so if the Thatcher Government does not want to have to go to the country with an inflation rate higher than the one it inherited from Mr Denis Healey.

The sanctity of contract still prevails in the land

GOOD LAW preserves bad bargains. This is one of the *side-effects of the* odour of the sanctity of contract.

If a company makes a bad bargain for the disposal of one of its main assets, none of its shareholders — however deeply aggrieved and however deserving of sympathy—can successfully sue the recipient of the asset either for an order for its return, or for damages for deprivation.

Nor can any member of the company's workforce take similar proceedings. Nor can *the company itself.*

So strict is the law's regard *for the sanctity of contract that* the courts do not recognise or apply a doctrine of unjust impoverishment—they do know of doctrine of unjust enrichment so as to recover the spoils from a departing trustee—entitling the victim of a bad bargain to any form of legal redress for or relief from his or her misfortune.

This, *no doubt, is one of the* privileges of belonging to a nation of shopkeepers. Behind the predictable decision on Friday of the trial judge, Mr Justice Walton, in the historic case of *Burmah Oil Co. Ltd. v. The Governor of the Bank of England* lurks this time-honoured legal principle.

The principle itself is an essential feature of the law's approach to commercial transactions.

In the eyes of the law, the parties to a contract are free to make or to refrain from making it.

Under the law of contract in its present form, developed in decided cases over the centuries, commerce consists of striking bargains and sticking to them. Nobody who has *struck* a sticky bargain has any automatic or inviolate legal right to become unstuck.

Inequality of bargaining power among the prospective *parties to a contract* in the course of negotiation or cre*ation is not in itself* an illegitimate restriction upon their freedom of contract.

The consumer protection legislation in recent years entitling the courts to consider and take into account the strength of bargaining power among the negotiators of a contract represents a *fundamental*, though welcome, departure *from the basic rule of common* law which still remains the norm.

The Burmah Oil case concerned that company's and its subsidiary's holding of shares in BP Ltd. The number of those shares was large, and their value considerable.

This shareholding was the company's greatest single asset, and had caused many of its own 16,000 small shareholders to acquire or retain their shares in the company. A share in Burmah Oil was a passable *substitute for a share in BP*—if shares in Burmah Oil were sandwiches, the company's BP shareholding was the filling in the sandwiches.

In 1975, the *Bank of England* took the filling from the sandwiches.

At the beginning of 1974, Burmah Oil was a *prosperous* and profitable company. But the *collapse in the stock* market and the explosion in oil prices resulting *from* the oil crisis contributed to a dramatic *change in its fortunes*. By the end of the year, it was in risk *of substantial* default on massive loan agreements and had to face the prospect of liquidation.

The Bank of England, with Government backing, came to the rescue.

There were two stages to the rescue. In December 1974, Burmah *Oil mortgaged* the shareholding in BP with the *Bank as security* for the Bank's first support package. In January 1975, the need arose for the second stage, and the Bank required as a term of the arrangement the sale of the BP shares by Burmah Oil to the *Bank at a price* fixed by the Government.

In July 1974, the market value of BP stock units had been about £6 per unit. By the end of December that year the value had fallen to below £2 per unit.

In January 1975, the market price was rising. By July that year it had recovered to about £5.50 per unit.

The price at which by agreement Burmah Oil sold its BP shares to the Bank of England in January 1975 was £2.30 per unit—38p below the prevailing market value.

Burmah Oil's proceedings against the Bank of England were started in October 1976.

It was alleged that the January 1975 *sale of* BP stock units was "unconscionable, inequitable and *unreasonable*," and "was procured by the Bank acting in breach of its duty of fair dealing and taking an unfair and unconscionable advantage of Burmah Oil."

In support of these and other grounds, Burmah Oil relied on various factors—the "inequality of bargaining power" between it and the Bank: the advantage taken by the Bank of its "temporary financial predicament": *the sale of the BP stock* "at an undervalue": the absence of profit sharing between it and the Bank: the delay by the Bank in stating its proposals: the failure of the Bank to provide guidelines for sale to third parties: its inability to seek assistance elsewhere: the Bank's duty of fair dealing: and the loss of dividend income from the BP stock.

In an earlier stage of the proceedings (when Burmah Oil was attempting to obtain disclosure of government documents) Lord Wilberforce *had* said that "the exact nature of Burmah's claim against the bank is not very clear." But Lord Scarman remarked that *the cause of* action was described by Burmah Oil's counsel as one "not yet fully developed in English law," and that "*there are indications* in the modern case law that *economic duress in a commer*cial setting may well constitute *a good cause* for action."

At the 13-day trial, Mr Justice Walton decided that there was never anything remotely equiva*lent to the putting* of any pressure on Burmah Oil to accept the Bank's offer in January 1975 to buy BP stock units.

On the evidence before him, it was clear that the Bank would have been only too delighted if it could have washed its hands of the whole affair.

In any event, Burmah Oil had "*extremely high-powered independent advisers*" who were quite capable of understanding and evaluating the Bank's terms, and had advised Burmah Oil to accept them.

The evidence established that, but for the Bank coming to the rescue, there would have been a liquidation in which Burmah Oil's shareholders would have got nothing.

One of the arguments put *forward* on behalf of Burmah Oil was that the Bank of *England* owed a duty to all the world to behave with those standards of conduct which the court demanded from one of its officers of the Supreme Court. Mr Justice Walton, rejecting this argument, said that the Bank was bound by the same rules in its commercial dealings as the rest of the community.

This too conforms with the traditional concept of the law *of contract* which sedulously refrains from imposing different standards of commercial conduct of morality on different types of commercial enterprise.

The law does not yet demand a higher degree of responsibility in commercial dealings from businesses or enterprises which exercise a higher degree of economic power. The same rules and the same standards apply alike to the village grocer and the international conglomerate.

The time is ripe for a review of the traditional concepts of the law of contract and for a statutory adjustment of those concepts so as to suit the needs and interests of various sections of the community at a disadvantage in business transactions in an era of harsh economic realities.

THE WEEK IN THE COURTS

BY JUSTINIAN

Le Garcon D'Or is on parade

RACING

BY DOMINIC WIGAN

THERE CAN seldom have been a busier racing schedule for the first Monday in July than today's programme. There is afternoon racing at Edinburgh and Pontefract, and evening sport at Windsor and Wolverhampton.

For many, one of the more enjoyable sights at Edinburgh will be Le Garcon D'Or's reappearance on his favourite course when he parades before the ninth running of the five-furlong sprint named after him.

No horse did more to earn a race in his honour than the now 23-year-old Le Garcon D'Or. The sprinter, who began racing in *1960, set a record for* this century by scoring on at *least one occasion during each* of the next 13 seasons. First past the post on six occasions in 1968 Le Garcon D'Or bowed out at the end of the 1973 campaign with 34 successes to his credit.

There is no sprinter in today's field of eight for the Le Garcon D'Or Handicap of anything approaching the talent of the Robert Manners - owned gelding. However, the race has attracted course winners, Dafydd and Ramboro Again, as well as the Jack Calvert five-year-old, Caledonian, who is *out to notch his fourth* consecutive victory.

Ramboro Again, in no way disgraced when failing by a length to give Silent Tears 35 lbs in a similar handicap at Warwick on June 20, will relish the top-of-the-ground conditions, and can halt Caledonian's sequence.

Now that Amberdamus, Letsgomo, and *Singing Dandy* have been withdrawn from the Glenfuir Stakes, the way should be clear for Six Legs to notch an overdue first success.

At Windsor, Lester Piggott should again benefit through *Grevill Starkey's suspension*. Piggott stands in for the Pulborough *stable jockey on Guy* Harwood's likely two-year-old winner, Never So Lucky, in the Albany Stakes.

Fifty minutes later, that same trainer could add to his already formidable tally through Gayles Bambina in the Beaumont Handicap.

EDINBURGH

2.00—Sami
2.30—Six Legs***
3.00—Ramboro Again
4.30—Prionsaa

WINDSOR

6.45—Never So Lucky
7.35—Gayles Bambina*
8.05—Childown Blue**

TV/Radio

† indicates programme in black and white

BBC 1

6.40-7.30 am Open University (Ultra High Frequency only). 11.25 Cricket: Second Test—England v Australia. 1.30 pm *Bod*. 1.45 *News*. 2.00 *Regional* News for England (except London). 2.05 Cricket: Second Test from Lord's. 4.18 Regional News for England (except London). 4.20 Play School (as BBC2 11.00 am). 4.45 Jana of the Jungle. 5.05 John Craven's Newsround. 5.10 Blue Peter Flies the World: Malaysia.
5.40 News.
5.55 Nationwide (London and South East only).
6.20 Nationwide.
6.55 Ask the Family.
7.20 Blake's Seven.
8.10 *Panorama*.
9.00 News.
9.25 The Monday Film: "The Power Play" starring Raymond Burr.
11.00 Now Showing.
11.38 News Headlines.
11.40 Managing the Micro.

All Regions as BBC1 except as follows:

Cymru/Wales — 1.30-1.45 pm Pils pala. 5.55-6.20 Wales Today. 6.55-7.20 Heddiw. 12.05 pm News and Weather for Wales.

Scotland — 9.55 am The Wombles. 10.00 Jackanory. 10.15 Godzilla. 10.35-10.55 Take Hart. 1.25-1.30 pm The Scottish News. 5.55-6.20 Reporting Scotland. 12.05 am News and Weather for Scotland.

Northern Ireland — 4.18-4.20 pm Northern Ireland News. 5.55-6.20 Scene Around Six. 12.05 am News and Weather for Northern Ireland.

England—5.55-6.20 pm Look East (Norwich); Look North (Leeds); Look North (Newcastle); Look North West (Manchester); Midlands Today (Birmingham); Points West (*Bristol*); *South Today (Southampton)*; Spotlight South West (Plymouth).

BBC 2

6.40-7.55 am Open University.
11.00 Play School.
4.30 pm Cricket: Second Test —England v Australia.
6.35 Open University.
7.00 Jacqueline du Pré Master-class.
7.25 Mid-Evening News.
7.50 Arthur Negus Enjoys.
8.05 Secret Army.
9.00 Sing Country.
9.50 *Brass Tacks (a look at* divorce in Britain).
10.35 They're Playing My Tune.
10.45 Newsnight.
11.30 Cricket: Second Test highlights.

LONDON

9.30 am Schools Programmes. 12.00 Chorlton and the Wheelies. 12.10 pm Rainbow. 12.30 Home and Design. 1.00 News, plus FT Index. 1.20 Thames News. 1.30 The Diana Dors Show. 2.00 The Riordans 2.30 Monday Matinee: "Mister Jericq" starring Patrick Macnee, Connie Stevens and Herbert Lom. 4.15 Porky Pig and Daff Duck. 4.20 Now for Nookie. 4.45 Scarf Jack. 5.15 History of the Motor Car.
5.45 *News*.
6.00 Thames News.
6.35 Crossroads.
7.00 The Krypton Factor.
7.30 Coronation Street.
8.00 Sorry, I'm a Stranger Here Myself.
8.30 *World in Action.*
9.00 Quincy.
10.00 News.
10.30 Hammer House of Horror.
11.30 Great Fights of the Seventies: Ali v Quarry and Ali v Dunn.
12.25 am Close: Sit Up and Listen with Dame Janet Baker.

Al IBA Regions as London *except at the following times:*

ANGLIA

1.20 pm Anglia News. 2.00 Monday Film Matinee: "Woman of Straw," starring Gina Lollobrigida, Sean Connery and Ralph Richardson. 5.15 University Challenge. 6.00 About Anglia. 6.30 Survival. 10.30 Anglia Reports (Tonight's edition investigates how the Cambridgeshire Health Authority spends its money) 11.00 Speedway. 11.30 Hammer House of Horror 12.30 am Methodists in Conference.

ATV

1.20 pm ATV News. 2.00 The Royal Show from Stoneleigh Abbey 3.45 Our Little Town. 5.15 Father Dear Father. 6.00 ATV Today. 10.30 Left, Right and Centre. 11.10 ATV News. 11.15 Hammer House of Horror. 12.15 am Something Different.

BORDER

1.20 pm Border News. 2.30 Monday Matinee: "Warpath," starring Edmond O'Brien and Dean Jagger 5.15 Survival. 6.00 Lookaround Monday. 6.15 Try for Ten. 6.45 The Sound of Stan Baxter. 11.30 Border News Summary.

CHANNEL

1.20 pm Channel Lunchtime News, What's On Where and Weather. 2.00 The Monday Matinee: "Gigi." 5.15 Happy Days. 6.00 Channel Report. 6.20 Cartoontime. 6.30 Mork and Mindy. 10.28 Channel Late News. 10.34 Hammer House of Horror: "Charlie Boy" 11.30 News and Weather in French.

GRAMPIAN

9.45 am First Thing. 9.50 Tarzan. 10.35 Al Oeminy 11.00 Cartoon Time. 11.10 Call It Marconi. 11.35 Bailey's Bird. 1.20 pm North News. †2.00 Monday Matinee: "Carve Her Name With Pride," starring Virginia McKenna. 5.15 Mork and Mindy. 6.00 Summer at Six 6.35 Out of Town. 11.30 North Headlines. 11.35 Father Dear Father

GRANADA

1.20 pm Granada Reports. 2.00 Monday Matinee "The Winslow Boy," starring Robert Donat 5.15 Joe 90. 6.00 Granada Reports 10.30 Film: "Charlie Boy." 11.30 Today Tonight. 11.40 Cities (Melina Mercouri's Athens).

HTV

1.20 pm HTV News. 2.00 Cartoon Time. †2.10 Monday Matinee: "Edward, My Son," starring Spencer Tracy and Deborah Kerr. 5.15 The Clifton House Mystery. 6.00 Report West. 10.28 HTV News. 11.30 Paris by Night.

HTV Cymru/Wales—As HTV West except: 10.05-10.20 am Cymru A'r Mor 11.05-11.20 Mwy Neu Lai. 12.00-*12.10 pm Ffalabalam*. 1.30-2.00 Hamdden. 4.45-5.15 Ser. 6.00 Y Dydd. 6.25-7.00 Report Wales. 10.30-11.00 The Questors. 11.00-11.30 The Brains International Matchplay Darts Tournament.

SCOTTISH

9.55 am Alphabet 10.20 Adventure Time. 10.30 England Their England. 10.55 The Lost Islands. 11.20 Pro-Celebrity Snooker. 1.20 pm News Headlines and Road and Weather Report. 2.00 The Royal Horse Show from *Stoneleigh Abbey*. 3.45 *Give Us a* Clue—Michael Aspel. 5.15 Mork and Mindy. 6.00 Scotland Today/Crime-*desk*. 6.30 *The Amazing Years of* Cinema. 10.30 The Communicators—Hugo de Burgh talks to Sir Huw Wheldon. 11.00 Late Call. 11.05 Hammer House of Horror.

SOUTHERN

1.20 pm Southern News. 2.00 Houseparty. 2.25 "Union Station," starring William Holden. 3.45 Life Begins at Forty. 5.15 Happy Days 6.00 Day by Day including Southsport. 11.30 WKRP in Cincinnati.

TYNE TEES

9.20 am The Good Word 9.25 North East News. 1.20 pm North East News *and Lookaround* 2.00 *Give Us a Clue* 5.15 Mork and Mindy 6.00 North East News 6.02 Sale of the Century 6.30 *Northern Life*. *10.30 North East News* 10.32 Northern Report 11.00 Presenting Lena Martell. 11.30 Our Little Town. 12.00 Learning from Children

ULSTER

1.20 pm *Lunchtime*. 2.30 Monday Matinee: "Bush Baby." 4.13 Ulster News. 4.45 Call It Macaroni. 5.15 Joe 90. 6.00 Good Evening *Ulster* 6.30 Here's Boomer. 10.29 Ulster Weather. 10.30 The Irish Factor: "The Brethren" 11.00 Golfing Greats (*Byron Nelson*). 11.30 Bedtime.

WESTWARD

1.20 pm Westward News Headlines 2.00 The Monday Matinee: "Gigi," starring Leslie Caron and Maurice Chevalier. 4.12 Gus Honeybun's Birthdays. 5.15 Happy Days. 6.00 Westward Diary 10.32 Westward Late News. 11.30 Faith for Life 11.35 West Country Weather and Shipping Forecast.

YORKSHIRE

1.20 pm Calendar News. †2.00 Monday Matinee: "The Magic Bow," starring Stewart Granger with Phyllis Calvert, Jean Kent and Dennis Price. 4.00 Here Hore. 5.15 Sha Na Na. 6.00 Calendar (Emley Moor and Belmont editions) 6.35 Happy Days 10.30 The Sweeney. 11.30 Moura (film profile of Moura Lympany).

(S) Stereophonic broadcast
‡Medium wave

RADIO 1

5.00 *am As Radio 2*. 7.00 *Mike Read* 9.00 Simon Bates. 11.00 Andy Peebles 12.30 pm Newsbeat. 12.45 *Paul Burnett*. 2.30 *Dave Lee Travis* 4.30 Peter Powell. 7.00 Stayin Alive with Andy Peebles. 8.00 Richard Skinner *10.00-12.00 John Peel (S)*.

RADIO 2

5.00 am Steve Jones (S) 7.30 Terry Wogan (S). 10.00 Jimmy Young (S). 12.00 John Dunn from the Royal Show, Stoneleigh (S). 2.00 Jean Challis (S) 4.00 David Hamilton (S). 5.45 News and Sport. 6.00 David Symonds with Much More Music (S). 8.00 Folk on 2 (S). 9.00 Humphrey Lyttelton (S). *10.00 Town and Country Quiz* 10.30 Star Sound 11.00 Brian Matthew with Round Midnight 1.00 am Truckers' *Hour (S)* 2.00-5.00 You and the Night and the Music (S).

RADIO 3

6.55 am Weather. 7.0 News. 7.05 Morning Concert (S). 8.00 News. 8.05 Morning Concert (contd.). 9.00 News. 9.05 This Week's Composer: Menotti (S). 10.00 Richard Markham piano recital (S). 10.50 Henryk Szeryng: violin recital (S) 11.25 Cricket: Second *Test. England v. Australia from Lord's*, including 1.35 pm News. 1.40 Your Letters Answered and 2.00 Lunchtime scoreboard. 6.40 Mainly for Pleasure (S) (joining VHF). 7.00 College Concerts 1980-81 (S), Part 1. 7.40 Herpes Simplex (short story). 8.00 College Concerts (S), *Part 2* 8.45 *Tartini (S)*. 9.00 Crowded Hours. 9.45 Ivo Pogorelich: piano recital (S) 10.30 Jazz in *Britain (S)* 11.00 *News* 11.05-11.15 Elisabeth Lutyens (S).

VHF—with Medium Wave except as follows: 5.55-6.55 am Open University. 11.25 BBC Scottish Symphony Orchestra (S). 1.00 pm News. 1.05 BBC Lunchtime Concert (S) 2.05 Matinee Musicale (S). 3.05 Schumann and *Liszt: piano recital (S)*. 4.05 New Records (S). 4.55 News. 5.00 Mainly for Pleasure (S). 11.15-11.55 Open *University and 11.55-12.55 am Open* University for students in Scotland, Wales and Northern Ireland only

RADIO 4

6.00 am News Briefing. 6.10 Farming Week. 6.25 *Shipping Forecast* 6.30 Today, including 6.45 Prayer for the Day: 7.00, 8.00 Today's News: 7.30, 8.30 News Headlines. 7.45 Thought for the Day. 8.35 The Week On 4. 8.45 John Ebdon explores the BBC Sound Archives. 9.00 News 9.05 Start the Week with Richard Baker 10.00 News. 10.02 *A Small Country Living* 10.30 Daily Service. 10.45 Morning Story. 11.00 News. 11.05 Down Your Way *visits Shrewsbury*. 11.50 *Weigh-in*. 12.00 News. 12.02 pm You and Yours 12.27 Lord Peter Wimsey. 12.55 Weather, programme news 1.00 The World at One 1.40 The Archers. 1.55 Shipping forecast. 2.00 News. 2.02 Woman's Hour. 3.00 News. 3.02 Afternoon Theatre (S) 4.35 Smith Against the System. 4.45 Story Time. 5.00 PM: News Magazine 5.50 Shipping *forecast*. 5.55 *Weather, programme* news. 6.00 News. 6.30 The News Quiz (S). 7.00 News. 7.05 The *Archers*. 7.20 *Start the Week* with Richard Baker. 8.00 The Monday Play (S). 9.30 Kaleidoscope. 9.59 Weather. 10.00 *The World Tonight*. 10.30 Science Now. 11.00 A Book at Bedtime. 11.15 The Financial World Tonight. 11.30 Today in Parliament. 12.00 News.

BBC Radio London

5.00 am As Radio 2. 6.30 Rush Hour. 9.03 *Morning Star*. 10.03 The Robbie Vincent Telephone Programme. 12.30 pm London News Desk 12.40 The Total Music Show. 2.30 Tony Blackburn. 5.00 News. 5.15 Music on the Move. 6.33 Inside London 7.03 Black Londoners. 8.00 As Radio 1. 10.00-5.00 am Join Radio 2.

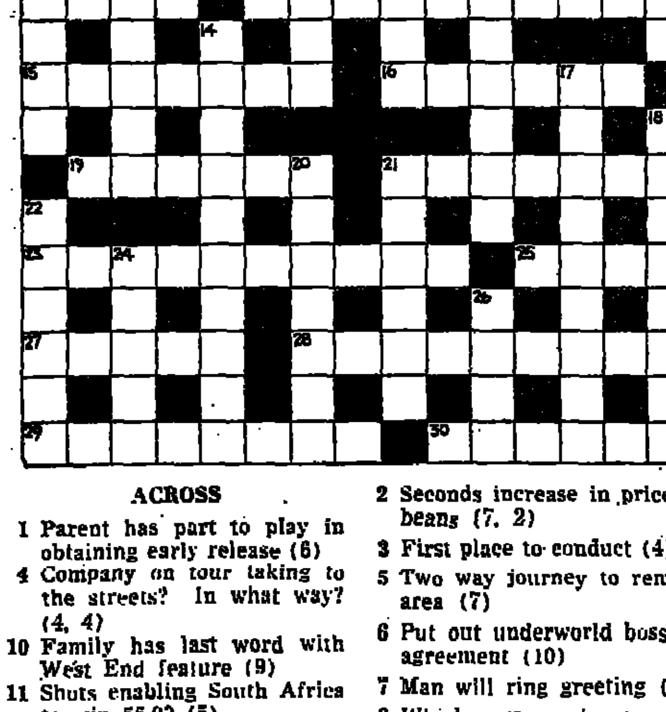
London Broadcasting

6.00 am Bob Holness and Douglas Cameron. 10.00 Brian Hayes. 12.00 *LBC* Reports. 7.00 pm London Life. 9.00 Nightline. 12.00 LBC Reports Midnight 1.00 *am Night Extra*. *3.30 LBC Cinema*. 4.00 Alter Eight Sunday (*repeat*). 5.00 Morning Music.

Capital Radio

7.00 am Mike Smith's Breakfast Show. 10.00 Michael Aspel. 12.30 pm Mike Allen. 1.00 First Report. 1.10 Mike Allen cont. 3.00 Roger Scott. 6.30 London Tonight. 8.30 Alan Freeman (rock music). 10.30 John Sachs's Late Show. 12.00 Midnight Special.

F.T. CROSSWORD PUZZLE No. 4,612



ACROSS

1 Parent has part to play in obtaining early release (6)
4 Company on tour taking to the streets? In what way? (4, 4)
10 Family has last word with West End feature (9)
11 Shots enabling South Africa to win 55-0? (5)
12 Female would take off (4)
13 Course it's from redskin stock (6, 4)
15 Gold Street before it became stripped of luxury (7)
16 Create when told to play against the slope (4, 2)
19 Done without old Bob getting cut (6)
21 A small amount of com*punction* (7)
23 Autograph handbook of royal authority (4, 6)
25 Love letter artist left spoken (4)
27 Shan't be worried by county (5)
28 Go with current firm (9)
29 A river scout making musical adaptations (8)
30 Retiring like this to look after port (6)

DOWN

1 Europeans pitch into direction finder (4, 4)
2 Seconds increase in price of beans (7, 2)
3 First place to conduct (4)
5 Two way journey to remote area (7)
6 Put out underworld boss by agreement (10)
7 Man will ring greeting (5)
8 Which person going to work over pole cries? (6)
9 *About to dust? Far from it* (6)
14 *Drink mother's willing to* give fictional lawyer (5, 5)
17 Capital affair in the High Court (5, 4)
18 Manoeuvre in action spread out (8)
20 Gun dean might use for keeping cargo dry (7)
21 Position of batsman can set a different pattern (6)
22 A maths puzzle giving rise to *complaint* (6)
24 Left right—he's doomed (5)
26 Endlessly wrong novelist (4)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

ENTERTAINMENT GUIDE

OPERA & BALLET

COLISEUM. S. 836 3161. CC 240 5258. NUREYEV FESTIVAL. Last Week. Evgs. 7.30. Mat Wed & Sat 2.00. With The Boston Ballet SWAN LAKE. Nureyev dances every performance. Tkts available for mat. Wednesday next. A few seats *still available for other performances.*

COVENT GARDEN. 240 1066. S. (Gardencharge CC 836 6903.) 65 amphi-seats avail for all perfs from 10 am on the day of perf THE ROYAL OPERA. Ton't, Wed & Sat at 7.00 Don Giovanni. Tomor & Fri at 7.30 Peter Grimes.

GLYNDEBOURNE Festival Opera with the London Philharmonic Orchestra. Until August 11. Tomor. Fri 5.55. Sun 4.55 *A Midsummer Night's Dream*. Wed. Sat 5.55 Ariadne auf Naxos. SOLD OUT Tel for possible returns BOX OFFICE 0273 812411.813424.

SADLER'S WELLS THEATRE EC1. Tel. 01-837 1672 1673 3856. Credit Cards 10 am to 6 pm 01-278 0871. Group Sales Box Office 01-379 6061. Until Sat. Ev. 7.30. Sat Mat 2.30 BALLET STARS OF AMERICA. The Cream of American Ballet Dancers. Tonight, Wed *Fri & Sat Mat*. Touch Me Pas de Deux Holberg-Emergere Sunflowers/Five Dances, Desire. Tomor. Thur & Sat Eve. Passegiando.Sylvia De Deux/Trio a Deux *The Dying Swan/Percussion IV/Casual* Moments. Tkts £1.50 to £7. SAVE £ £ £ £'s DANCE SUBSCRIPTION SEASON. For details Tel. 01-278 0855. *NOW!*

THEATRES

ADELPHI. S. CC. 01-836 7611. Evs. 7.30. Sat. 4.0 & 7.45. Mats. Thurs. 3.00. TONY BRITTON JILL MARTIN, PETER BAYLISS in MY FAIR LADY For group *bookings telephone* 01-836 7358 or 01-379 6061. Anna Neagle returns July 7. Now booking through to October.

ALBERY. 01-836 3878. CC bkgs. 379 6565. Grp bkgs 836 3962 or 379 6061. Evs. 8.00 Thurs. Mat 3.00. Stalls from £2.90. Sat 5.00 and 8.15. Sian Phillips. *Denis Lawson 'Most Promising New* Actor DRAMA AWARD 1980). Rodgers' and Hart's musical PAL JOEY.

ALDWYCH. S 836 6404. CC 379 6233 (10-6. Sats 10-4). Info 836 5332. Tonight 7.30 pm ROYAL SHAKESPEARE COMPANY in new production of *TROILUS AND CRESSIDA directed by* Terry Hands. Tonight 7.00 pm, few seats avail. Booking also open for THE MERCHANT OF VENICE (opening 14 *July) and AS YOU LIKE IT (opening 21* July). Prestel 22023. Group Sales 379 6061. RSC also at Warehouse/Piccadilly/Fortune.

AMBASSADORS. S. CC. 836 1171. Evs. 8.00. Tues. Mat 3.00. Sat. 5.30 and 8.30. RECORD BREAKING RUN of J. B. PRIESTLEY'S Mystery Play DANGEROUS CORNER. Acclaimed revival of Priestley's most popular play. Seat prices from £3.00.

APOLLO, Shaftesbury Ave. CC 437 2663. Evgs. 8.0. Sats. 6.0 & 8.45. CLIVE JAMES, PAMELA STEPHENSON, RUSSELL DAVIS in CHARLES CHARMING'S CHALLENGES An epic with 1,000 voices.

APOLLO. *Shaftesbury Ave.* S. CC. 437 2663. ONE NIGHT STAND. A new comedy musical by Mike Harding. From July 17. Book Now!

ARTS THEATRE (Gt Newport St. WC2). 01-836 3334/2132. Reduced Price Prevs from July 28 at 8.00 ALL SEATS £3.00. *Opens Aug 3rd at 7.30. Subs Evgs 8.00.* RICHARD HUGGETT as EVELYN WAUGH in A TALENT TO ABUSE. An Original One Man Play.

CAMBRIDGE THEATRE. Tel 01-836 7040. 6056. Red Price Prevs from tomorrow. Evgs 8.00 (no perf Sat & Sun). All seats £3.00. *Opens Tues 14th July at 7.30.* Subs Evgs 8.00. Sat 6.00 & 9.00. Late Show *Fri* 10.30. The Entire American Company direct from New York in ONE MO' TIME! *THE GREAT NEW ORLEANS* MUSICAL ONE MO' TIME IS A GOOD TIME!

CHICHESTER *Festival Theatre* 0243 781312. Season sponsored by Martini & Rossi Ltd. THE MITFORD GIRLS. Ton't at 7.0.

COMEDY THEATRE. S. CC. 01-930 2578. Panton St., W1 The Award Winning Musical Hit BILLY BISHOP GOES TO WAR. Evgs. 8.0. Sats 5.30 & 8.30. FINAL WEEK MUST END SATURDAY.

CRITERION. S. 930 3216. CC. 379 6565. Group bkgs 836 3962. Evs 8.0. Sat 6.0. 8.45 LAST WEEK. CARL CHASE in HANK WILLIAMS THE SHOW HE NEVER GAVE. Liverpool Everyman prod. Dir. by Ken Campbell & Terry Canning

CRITERION. Now booking Dario Fo's farce CAN'T PAY? WON'T PAY! LOW PRICE PREVIEWS. ALL SEATS £2.90. *15 to 24 July.*

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THEATRES

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THEATRES

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WAREHOUSE. Donmar Theatre. Earlham Street, Covent Garden. Box Office 836 6808. ROYAL SHAKESPEARE COMPANY. New political thriller by Howard Brenton. THIRTEENTH NIGHT. Seats avail tonight 7.30 pm. All seats £3.50, students £2.00 in advance from Aldwych Box Office.

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THE ARTS

Balanchine's "Garland Waltz" from "The Sleeping Beauty"

New York City Ballet

Balanchine's Chaikovsky

by CLEMENT CRISP

The New York City Ballet has staged tributes to the music of a single composer on three occasions. In 1972 there was the phenomenal Stravinsky Festival; in 1975, Ravel was similarly celebrated; now, Chaikovsky has been honoured. Some 20 works were presented — of which a dozen brand new — and there can be no better indication of NYCB's continuing dedication and creative vitality. Even though schedules were dogged by injuries to leading dancers, so that programmes and casting were disrupted, the series of performances that I saw were tremendous.

The festival involved six company choreographers: Balanchine, Robbins, John Taras, Peter Martins, Jacques d'Amboise, Joseph Duell, and if certain works were less than happy, the standard of dancing was always superb; a new choreographer (Joseph Duell) showed real promise, and Balanchine produced two pieces of exceptional fascination. (His revival of the *Mozartiana* which he first mounted in 1933, hailed by every observer, was a victim of injury when Suzanne Farrell hurt herself during its first performance. Similarly, his *Hungarian Gypsy Dances* had but one showing before Karin von Aroldingen's injury caused its postponement in repertory).

An important innovation of the Festival was the *reductio ad absurdum* of NYCB's usual decorative austerity — "the single" permanent setting designed by Philip Johnson, architect of the State Theatre, and his partner John Burgee. The commission from Balanchine was for an "ice palace" wherein Chaikovsky might be sensed.

The result is a set — or rather, the "grammar for a set" — comprising 3,600 pieces of clear plastic tubing which is a cave, a palace, a cathedral, an interior or exterior by adjustment of its components. Admirably lit by Ronald Bates, this decor proved apt for every ballet, and even for a programme of non-festival repertory which I saw. I can best suggest its quality by saying that it allows the audience's imagination free rein; during Balanchine's reworking of the *Sleeping Beauty* garland dance one could imagine the whole ballet given in this setting — a palace, its gardens, a forest, could all be evoked.

Balanchine's idea for the festival was to tell New York audiences that there is more to Chaikovsky than the three great Maryinsky scores; it owed something also to his St. Petersburg years as student and dancer, when he appeared in those "classics" at the Maryinsky and danced in Chaikovsky operas, for these are persistent artistic memories; it also reminded us of his membership of a distinguished musical family, whence his love for the less-known piano music and songs and the unjustly neglected orchestral music. By inference one could see how Balanchine was also extending the horizons of his dancers and associate choreographers, reminding them of Chaikovsky's genius as melodist, orchestrator, master of danceable rhythms.

There were, for me, two miracles in the festival—both produced by Balanchine. The first came in *Tempo di Valse*—a collection of waltzes which included a variation from John Taras' *Designs with Strings* ineffably danced by Allegra Kent and Ib Andersen, Balanchine's flower-waltz from *Nutcracker*, and Taras' dramatically allusive setting of the *Onegin* waltz for students of the School of American Ballet.

Balanchine here created a version of the *Sleeping Beauty* garland waltz, or perhaps one should say he remembered the waltz, for I have never before been made aware of how this number must have seemed at the Maryinsky Theatre. Sixteen couples, joined by nine more danseuses and a bevy of young girls from the School, were deployed in evolutions which are both the "then" of St. Petersburg in 1890 and the "now" of New York in 1981.

It is a masterpiece—the garland dance in which Balanchine appeared as a student at the Maryinsky and, nearly 70 years on, has remembered and reconsidered in the light of what he has done to keep the classic academic dance alive and relevant in America. Compared with the Kirov version, which is "authentic" though adulterated and nostalgic, or with the Royal Ballet's several and unenterprising stagings, this garland dance blazes with life. It unfolds to the furthest reaches of the stage; its patterns are harmonious, inevitable, as the garlands sway and bend and the dancers interweave and entwine, and the children—shades of the student Balanchine, though he has yet to bring boys into the number—move with careful joy among them.

In it the continuing importance of *The Sleeping Beauty* is strongly to be sensed. I found it most beautiful and exciting—words to make anyone take stock who knows this waltz only as the statutory *danse générale* that prepares us for the arrival of Aurora. In the same way that it is possible to deduce the spirit of a larger work from its parts, we can sense what Balanchine could—and, please, must—make of *Beauty*. It has been a long-time dream that Balanchine will stage the full-length ballet. This garland dance brings the dream a little nearer reality, as does the present richness of NYCB in dancers ideally suited to meet the grandest demands that *Beauty* can make.

No less thrilling, but how different, the closing of the festival with a performance of the sixth symphony's last three movements. The *allegro con gracia* was set in yearning style by Robbins; the orchestra (who played magnificently throughout the festival) undertook the succeeding *molto vivace*, and then came Balanchine's portrait-tribute to Chaikovsky in the *adagio lamentoso*.

Many comments about Balanchine's choreographies tend to clichés about "abstract" dance, but anyone who considers the great body of his work can see how filled with emotion is his response to scores, how passionate — but with passion ordered, controlled, never gratuitous, and never "abstract" for his ballets are filled with the life of his dancers as well as of the dance.

Yet no one, I suspect, could have predicted the visual bravado, the depth of feeling aroused in him by this tragic, saturated music. The *adagio* is one artist's immediate, vivid response to another with whom has has complete sympathy—one might say this of the entire Festival. The central assumption in this *adagio* is that Chaikovsky knew that he must kill himself, an inevitable outcome of Tsarist society's persecution of a homosexual, and that in the last movement of the last symphony this is Chaikovsky's message.

So Balanchine shows us three grieving women — Karin von Aroldingen, Stephanie Saland, Judith Fugate—with an attendant group of female mourners. To them come a troupe of angels, white robed, white winged, bearing lilies, who remain for a moment as mere glimmering presences behind the translucent tubing of the set—glorious imagery.

They are succeeded by purple-robed figures, emissaries of death, who watch as a procession of black-clad monks appear and lie centre-stage in the form of a cross—oddly like priests prostrated before the altar as they take their final vows. These black figures suddenly heave and yawn apart, like a grave opening to receive a corpse, and then a small white-robed boy appears at the back of the stage, bearing a lighted candle. He represents the soul of the departed, and as he walks downstage the blows out the candle—reference to a Sufi theory that where the soul's light comes from, there will it go. The curtain fell—and deliberately did not rise again—upon an audience hushed, puzzled, even disturbed; but many of us were gripped by the power of this salute and farefell to Chaikovsky.

The dance-language had been of the utmost simplicity, and so in its directness had been Balanchine's realisation of the score and his summation of Chaikovsky's tragedy. Perhaps you have to be Russian to comprehend everything that is implied in this ritualistic work: but even to a non-Russian, it spoke of greatness comprehended, of genius speaking to genius. I shall hope to comment further upon the festival, upon other new works and upon the stature of the company performances, hereafter.

Alec McCowen and 'St. Mark's Gospel'

Alec McCowen is to return to the West End in *St Mark's Gospel* for a four week season at the Globe Theatre opening July 12.

Alec McCowen gave his first solo performance of *St Mark's Gospel* in 1978 at the Riverside Studios, subsequently transferring to the Mermaid followed by a West End season at the Comedy Theatre.

Architecture

Rediscovering delight

by COLIN AMERY

The architectural week began badly last Monday with the announcement that the Government cannot find any cash to support Britain's only independent architectural school, that of the Architectural Association in London. This sad decision by the Education Secretary Mark Carlisle means that students from the UK will continue to be outnumbered by the large intake of foreign students who can afford the fees.

The chairman of the school, Alvin Boyarsky, who has been in the forefront of the battle to win mandatory grants described the decision as purely political and predicts that the school will have an 80 per cent foreign intake by 1983.

I must declare an interest as a member of the Council of the Association, but it is generally accepted that the AA is the liveliest and most influential school in the country and it is a tragedy that the Government's short-sighted decision will make the school an enclave of rich students remote from the British architectural scene.

The Architectural Association has a new president, the architect John Prizeman who has issued a statement saying that he hopes that the AA (which is open to all those who are interested in architecture) will help to rediscover the element of "delight" in buildings. One of his remedies for bringing architects and the users of buildings closer together is a proposal that architects should act more like General Practitioners. It should be possible for you to consult an architect GP about a design problem and he should be your own local man.

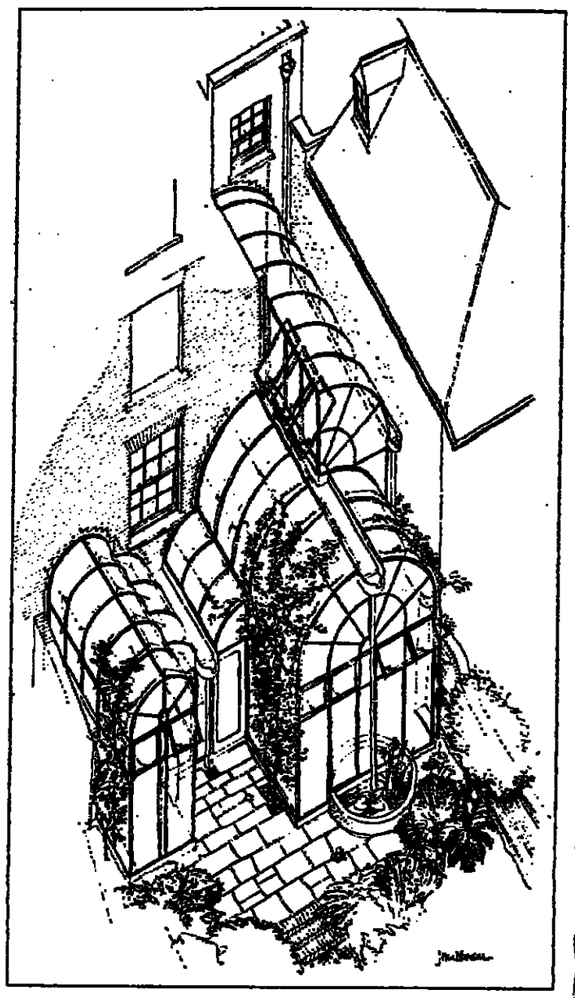
I went to see an architect who fits into this category. John Benson is a one-man practice in London living and working in Hampstead, Kentish Town and other similarly architect-conscious areas.

John Benson is a bit like a doctor. He gets to know his clients and is not averse to designing a kitchen extension, a swimming pool or a conservatory. His work is not confined to London and one of his most interesting schemes is a swimming pool wrapped around a house on the outskirts of Hereford. The pool is built under a glass and timber roof which was built in 10 weeks by a local carpenter. It includes a diving pit that is deep enough for a little indoor scuba work.

In Holland Park Benson has added a Gothnick front wall to a 19th-century villa that has machicolations and pinacles and quatrefoil mouldings. The wall is ostensibly designed to keep out traffic noise but it performs this mundane task in a way that dignifies the whole house.

When an architect runs his practice like a GP he has to be flexible on matters of style. Benson has recently completed an elegant addition to an 1820s house in Hampstead that takes the form of a conservatory that follows the style of the existing house. Curved glass roofs covered in deciduous vines make for a light yet shaded summer room and in the winter the low level of the light is maximised by the glass walls. The framework of the conservatory is made of pine with a light metal frame inside.

The small-scale practice, the sympathetic local designer, the close relationship with the client, are all ways that the architect can win a better response from the public. Architects are not managers, they are designers first of all and it is the small practices that can lead the way and help architects to be loved again.



Curved glass conservatory added to an 1820 house

Her Majesty's

Amadeus

by B. A. YOUNG

Transferring Peter Shaffer's play from the Olivier's open stage to the proscenium stage of Her Majesty's makes less difference than one might expect; I thought it was almost a proscenium-style production before, and a very fine one. The important changes are Frank Finlay for Paul Scofield as Salieri and Richard O'Callaghan for Simon Callow as Mozart.

This is a more saturnine Salieri, with an edge to his words even when they seem harmless. The great cadenza at the end of the first act, in which he declares war on God for allowing genius to the silly, vulgar Mozart and denying it to himself in spite of the bargain he made in his youth, is powerful rather than subtle, Mark Hamburg rather than Cortot, yet it is undeniably effective. The author has simplified the second act, bringing Salieri nearer the front of things; Mr Finlay cannot avoid seeming more comic than the situations suggest to me, with his constant alternation of sympathy and scorn, but this is inherent in the lines.

Mr O'Callaghan is still required to utter shrill treble giggles, which seem to me even less appropriate than they did for his predecessor, for his is basically a more mature characterisation. Yet he does not achieve the appearance of a man who, however frivolous, was capable of composing the superlative music that we are treated to at happily generous intervals during the evening. It's possible to do so, I know, for I have seen it done.

The changes in the script are slight, the chief of them being the deletion of Salieri's servant posing as the mysterious messenger who commissions the Requiem. I can't pretend that I admire the play; it seems to me to reach a climax at the point where Salieri seduces Mozart's wife (Morag Hood), which must also be the point at which his dedication to God first cracks. It's comparable with Salieri's poisoning of Mozart's wine in Pushkin's play. Yet this climax is ignored afterwards, and Salieri's mad jealousy kept as the only spur in his plotting. All the same, you can't write a play about Mozart without golden moments; and Peter Hall's Tony-winning production is splendid indeed.

Museum of the Year award

The Hunday National Tractor and Farm Museum at West Side, Newton, Stocksfield, Northumberland, has been chosen as Museum of the Year for 1981.

The winner of this year's contest, sponsored by *The Illustrated London News* and National Heritage, received £2,000 and *The Illustrated London News* trophy, a porcelain sculpture by Henry Moore.

Riverside Studios

Fabian and Matuz

by DOMINIC GILL

From start to finish, Riverside's enterprising mini-festival of contemporary Hungarian music last week had a jinx upon it—not a single concert of the series was as successful as it should or could have been. The first was ruined by a vilely insistent buzz from a faulty lighting system; and the second, given by the New Music Studio from Budapest, by a programme which seemed to have been designed expressly to show off the Studio's very least original and least interesting work. On Thursday, only 15 people (including critics and friends) turned up to hear the British debut of the pianist Erika Lux. And for other reasons again, neither of the two last concerts on Friday and Saturday, respectively for cimbaloms and solo flute, made the lively impressions they should by rights have done.

Evidently we do not have in England a surplus of cimbalom tuners (the job is an exacting one, and trickier than tuning a piano)—the few who exist are both elusive and expensive. The cimbalom virtuoso Marta Fabian with her partner Agnes Szakaly played their recital of cimbalom duos on Friday on two instruments which were out of tune from the start, both individually and relatively, and which by the end of the evening had wandered apart in some registers by as much as a quarter-tone.

The effect was definitely striking—but it was certainly not authentic: and it allowed no one present to appreciate the very particular and beautiful (and not in the least discordant) qualities of the instrument. No self-respecting pianist would agree to give a serious recital on a jangly pub-piano; but rather than leave their audience stranded, much to their credit — and with the greatest forbearance and good humour — Fabian and Szakaly forged on to the end.

On Saturday the hall was quiet, the audience a decent size, the programme interesting, and the instrument itself in perfect condition — only the performer himself was well below his best form. I have written several times in recent years on this page about the remarkable flute playing of Istvan Matuz. But on this occasion, although his mouth blew and his fingers pressed the right keys, often with considerable virtuosity, his heart did not seem to be in the music. There was too much breath, and too little breadth, to the performances: each one a vivid blueprint that lacked the final vital touches of expressive colouring, expressive nuance. In the last two works of Matuz's programme, an elaborate and technically demanding solo study called *Plus Alpha*, by Barnabas Dukay, and a transcription for flute and piano of Bartok's *15 Hungarian Songs*, there was a glimpse of the real musicians behind the notes: but not enough, and too late.

Wednesday late opening at the National Gallery

The National Gallery has announced that it will remain open until 8.00 pm on Wednesdays during the months of July and August. The necessary funds for the overtime involved are being found from savings.

Attractions on Wednesday evenings include a special series of talks at 6.30 pm by keeper staff at the Gallery, including the director himself.

The Artist's Eye: David Hockney is on show in the Board Room July 1-August 31; the restaurant and shop will remain open until 7.00 pm and 7.45 pm respectively.

Warehouse

Thirteenth Night

by MICHAEL COVENEY

After a Labour Party ward meeting, a group of socialist politicians is attacked by black shirts. Before passing out, Jack Beaty is asked "What if a socialist party came to power tomorrow?"

A sheet of orange plastic is cleared and Howard Brenton's "dream play" is under way. Beaty is surrounded by three women in an underground car-park and directed to live what he preaches. A speech advocating the nationalisation of American assets and Third World alignment has proved an incitement to riot. The American Embassy is attacked and 12 people killed, including the Ambassador. The trouble with the revolutionaries is that they want only the Garden of Eden or, failing that, a planet of dust. The fear is articulated by Beaty.

The dream takes on the characteristics of a nightmare. The three girls could be the three witches in what turns out to be futuristic thriller re-write of *Macbeth*. We have Stalinist purges, a Macduff ex-cabinet minister (Derek Godfrey) who resists the call to arms in California, drinking himself to death by his swimming pool. An African leader is Banquo's ghost, played by the same actor, John Bowe, who was Beaty's best friend.

Barry Kyle's production, flecked by a strange score of jingles by Nick Bicât, is a rich and ambitious piece of work. It is particularly good at conveying the uneasy camaraderie between the Labour politicians, headed by David Waller's ruthless Prime Minister, lolling around in a self-satisfied lard of 37 years' loyalty to the cause. A Northern brass band rally is trapped in the image of a line of men draining pints in grey plastic macs. And Beaty's act of regicide in a Northern hotel, egged on by the extreme blandishments of his lover (Domini Blythe), is an exciting flash-point where public ambition and private loyalties carry the ful impact of the model.

John Bowe has a key speech, just before his death, about the need for good men to act rationally. Brenton suggests that the danger of revolution is that "we could become the thing we seek to destroy." There is plenty of evidence for agreeing with that, but no sign of how to avoid it. This does not diminish the right of the playwright to give voice to cynicism.

Michael Pennington as Beaty, looking not unlike a younger Neil Kinnock, wanders dreamily aghast through the landscape. His Birnam Wood is a country retreat in Suffolk eventually populated with the dead bodies of friends. It is a mesmeric performance that snaps shut with a ferocious bite when confronting the age-old question of having the arguments but, after years of talk, lacking the will.

CRICKET BY TREVOR BAILEY

Lord's Test fails to please the crowd

MOST OF the cricket served up during the first three days of the Lord's Test has seldom been, apart from the fielding, more than mundane. It has certainly failed to do justice to the setting, the capacity crowds or the occasion. The blunder not to recommence play on Friday evening — when the sun shone after the umpires had come off for bad light — the time taken to remove the covers, and a sluggish over rate have not assisted.

Apart from two sparkling cameos from Gooch and Wood, nobody has produced an outstanding innings. The number of memorable strokes, mainly square cuts and hooks, can almost be counted on the fingers of two hands.

The game now seems to be drifting steadily towards a draw. Providing the pitch was easy paced, this has always appeared the most likely outcome, because in these circumstances the Australians were unlikely to dismiss England who, on paper at least, has a strong batting line up, twice.

Conversely, one doubts the ability of the English attack, which is rather anaemic by international standards, to bowl out their opponents twice in the time available, even though the Australian batting is short of both runs and depth.

Have the Aussies this century ever arrived at Lord's without a single first class century to their credit, and with their main batsmen averaging between 25 and 35?

With this type of form and four back in the pavilion at lunch on Saturday, Botham was well in command. There were even thoughts of his achieving that long awaited first Test win, especially as the pitch and the atmosphere gave his bowlers more encouragement than earlier in the game, thus making the decision to put England in on Thursday even more incomprehensible.

However, thanks to sensible workmanlike knocks — from Hughes, Border and Marsh — the visitors managed to escape. They might even secure a first innings lead, though, with the second new ball due to arrive shortly, this is unlikely.

Their recovery was helped by a plague of no balls from Willis and Dilley, and the failure of our seam bowlers to maintain a consistent line and length. Willis did worry all the batsmen with his bounce and movement off the pitch but he was hardly used after the tea interval presumably because he was not well.

From the England point of view, the most encouraging feature was that for several overs Botham looked the fine attacking bowler he was two summers ago.

But Dilley, apart from the occasional good delivery, disappointed. His action does not yet appear to be sufficiently grooved. His long walk back is depressingly slow.

At this stage, Australia have good reason to be satisfied with their performance. After all, they are one up in the series and would be well satisfied with the draw and the prospect of a pitch at Headingley which their pace bowlers are likely to exploit rather better than England.

In addition to the fight back by the middle order, their two young quickies—Lawson and Alderman—were more menacing than their opposite numbers even though the wicket was easier and the opposing batting stronger.

Lawson is fast enough to hurry batsmen even on a slow pitch, his bouncer accounting for both Gooch and Woolmer. He maintained his pace for 43 overs. His figures of seven for 81 speak for themselves. With the support of a large number of slips he never stopped attacking.

His principal partner was Alderman since Lillee was well below his best. Alderman has a fine action, excellent control and possessses all the attributes of a top class seamer, of which there is an acute shortage at the present time. He deserved better figures.

Could it be that, in addition to the large number of pace bowlers from overseas currently dominating the county scene and with so many limited-overs matches when containment is the main consideration, that too many of our home born best prospects are concentrating too much on keeping the opposing batsmen quiet rather than bowling them out?

TENNIS BY JOHN BARRETT

Justice tips scales for John McEnroe

IT WAS poetic justice that the 22-year-old American, John McEnroe, should have beaten Bjorn Borg, 25, in Saturday's Wimbledon, for last year it was the left-handed American who had faced Jimmy Connors in the semi-final. That punishing four sets win, plus match congestion due to rain, left McEnroe drained.

This year, it was Borg's turn, and one can only sympathise with the five times' champion that in Thursday's magnificent semi-final Connors should have chosen to produce probably the best tennis of his distinguished career.

Not that Jimmy would accept that assessment. The ultimate professional, to him winning is the only thing that matters.

In the 1980 final, McEnroe's service power had threatened to swamp the Swede, but a two sets lead was denied him.

This time, they both started faster. Borg's ground stroke superiority gave him the opening set.

But McEnroe, serving well throughout for the first time this Wimbledon, made sure of the second tie break and produced really accurate deliveries and firm volleys to deny Borg four set points at 4—5 in the third set.

Those fleeting moments of lost opportunity proved decisive. Borg's 3—2 lead in the third set tie break was turned into a 6—3 advantage for the American, and he claimed the set two points later with a confident forehand volley.

During the fourth set, McEnroe, still serving with power and disguise, began to look increasingly confident against the Borg serve which was not at its best. Coming in behind early hit returns, whose slice kept them low, McEnroe looked likely to break serve at any moment.

It came in the tenth game when Borg fell from 30—0 to 30—40 as a rushed backhand pass ended in the net. McEnroe missed his first championship point when a backhand pass flew wide. But a leaping smash and another forehand volley from an early hit return sealed the victory.

The 4—6, 7—6, 7—6, 6—4 success—worth £21,600 to the American—spanned 3 hours and 23 minutes of high-calibre play that stamped McEnroe as the most versatile and talented shot-maker of his generation.

It was the 13th meeting between these two since 1978 when McEnroe won their first encounter in Stockholm to become the first player younger than Borg to beat him.

McEnroe also became the 13th American to win at Wimbledon since World War II. None of the previous 12 ever won the title again. Such is McEnroe's genius, he could surely break that record if he so chooses.

He might not. Already aware of earlier fines of $2,250 (and a further $2,500 recommended), McEnroe was told as he was leaving the ground of the decision to recommend to the Men's Pro Council that he should be fined the maximum $10,000 and be suspended for three weeks following his outbursts in his semi-final against Rod Frawley.

Not surprisingly, he did not attend the champions' dinner.

The fines were justified.

I would be the last to condone McEnroe's violent verbal outbursts. But, until we demand the same high standards of performance from professional court officials that the players are subjected to through the Code of Conduct, we can correctly be accused of setting double standards. The present umpires and linesmen are devoted amateurs who do their best but they have no formal training and no tests. We should not expect too much of them.

While Mrs Event Lloyd was consolidating her position as the world's number one at the expense of her French semi-final conquerer Hana Mandlikova—surely the most exciting woman player for years—McEnroe and Peter Fleming were also re-establishing themselves as the best doubles pair in the world at the expense of the recalled American Davis Cup player, Stan Smith and Bob Lutz. Sweet revenge this, for a loss in the 1980 U.S. Open final.

More than 358,000 fans attended the 12 days of play—about 15,000 more than in 1979.

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A weekend of rioting

NO-ONE should come to hasty conclusions about the riots in the West London suburb of Southall and the Liverpool district of Toxteth last weekend. In the first place, riots—where the police tend to find themselves in the middle—are not new, even in England. In the 1960s, confrontations frequently took place between white mods and white rockers, causing considerable damage to property.

Racism is not a new phenomenon either. In the 1930s, when the number of blacks in Britain was small, the fascists marched against the Jews: hence the introduction of the Public Order Act 1936, which is still in force today. A tendency to violence and intolerance was always there. It would thus be rash to conclude that the latest developments are entirely attributable either to youth unemployment or to the rise in the black population, or even a mixture of both.

The police

Nevertheless, street rioting is becoming if not a way of life, then at least an increasingly familiar occurrence in some inner cities. Last weekend was the first time when serious violence broke out in two places at once: there could be a multiplier effect.

Three factors stand out about recent events, whether in Southall, Toxteth, Brixton or Bristol. The first is the trend towards escalation. The use of the Molotov cocktail, for instance, can now be introduced within hours of trouble occurring. That suggests a degree of pre-planning. If this trend persists, the police will have to be better equipped to deal with it. In France the police use water hose and tear gas.

The second factor is the way that in some cases the police themselves seem to have become the object of attack. Various explanations have been given. According to police spokesmen, crime is rife within parts of the black community and criminals must be pursued, regardless of their colour. According to some spokesmen for the black community, however, the blacks feel themselves harassed by continual police interference. It is often the arrest of a black youth which leads to violent incidents.

There is here a genuine dilemma. It would be a fundamental change in British society if the police were no longer to be generally trusted. Yet it would be no less of a change if the police were to allow crime and violence to flourish in what might be called no-go areas. Somehow the police will have to make it understood that they are looking only for criminals and, when incidents occur between blacks and whites, that their only purpose is impartially to restore order. Relations between the police and the black community must be improved.

Discrimination

The third and perhaps most important factor that emerges from recent developments is the absence of any firm determination in this country to outlaw racial discrimination. In this, Britain is quite different from the U.S. In the 1960s, it seemed that American race riots were the wave of the future. They were checked when the federal government set an example from the top by declaring that discrimination must come to an end.

No comparable effort has ever been made in Britain, least of all from the top. Condemnations of racial prejudice in this country are at best half-hearted and only rarely turned into action. Mrs Thatcher's best-known pronouncement on the subject was her remark about British fears of being "swamped by people with a different culture." In fact, it is no longer a question of immigration. It is a matter of providing equal rights and opportunities for those blacks already here, many of whom were born here.

Employers

There is room for argument about whether further changes are required in the law. We would prefer to await the outcome of the Scarman inquiry into what happened at Brixton, and why. Meanwhile, there is a role for employers in seeking the widest possible recruitment among the races. The determination to end discrimination must be seen to go all the way down the line. If that example can be set, it should also help the police in their relations with the black community.

Reform of higher education

A COMMON CRITICISM of the UK Government's decision to cut higher education is that only about one in eight of British 18-year-olds go on to full-time higher studies—a lower proportion than in most developed countries. But such direct comparisons can be misleading.

The specialised honours course mainly taken by 18-year-olds at UK universities is often of an academic level more associated with postgraduate than with undergraduate study elsewhere. There is also evidence of a growing tendency for academically able school-leavers to find employment rather than become full-time students, and undertake their higher education on a part-time basis later in their career.

This probably explains the University Grants Committee's decision to increase places for part-time students at the 42 British universities by 5.7 per cent to 45,480 by 1983-84. Over the same period full-time places for students from Britain and the other EEC countries are due to decrease by 4.7 per cent to 248,720. The change will leave only 48 per cent of the remaining full-time students in arts and social studies faculties, compared with just over half last year.

Severe

There will be a rise from 41 to 42 per cent in those studying science and technology, and one from 8.9 to 9.8 per cent in students of medicine and dentistry. And this shift, however small, in the emphasis of higher education towards the sciences seems a desirable outcome of the committee's proposals, as the first step in reducing UK higher education to a size and shape the country can afford.

The slight change in total, however, is to entail severe reductions in the student populations of certain institutions. There are to be cuts of 30 per cent at Salford and of 22 per cent at Aston—both established relatively recently to concentrate on technological studies — and of more than 10 per cent at six others.

The University Grants Committee refuses to discuss publicly the grounds for such drastic pruning since as the body formed to shield the legally independent universities from Government supervision, it is obliged to keep secret their individual affairs. All the committee will say about the institutions which are to suffer severely is that the courses they will retain are of a quality comparable with any elsewhere.

Unfortunately, this scrupulousness cuts both ways. The reductions at the worst affected universities, being unexplained, will unnecessarily deter many school pupils from applying to study at them. The silence also prevents the taxpaying public from discovering what changes are to be made — and why — in the institutions which, even when reduced, will still cost the Exchequer nearly £1bn a year. On this occasion, at least, the committee would have done better to be more forthcoming.

Diffused

There is another way, too, in which the move to rationalise higher education remains unsatisfactory. The universities represent only part of the public investment in degree-level studies. There are an additional 200,000 or more students in full-time attendance at the 30 polytechnics in England and Wales. No body like the University Grants Committee exists to exercise even guidance over the polytechnics. The responsibility for distributing funds to these institutions is diffused among about 90 different local education authorities.

Moreover, in many instances, the polytechnics' courses are similar in content and inferior in quality to their counterparts at universities. As a result, activities being withdrawn from the university sector are liable to be superior to the same work which is allowed to continue in polytechnics.

If higher education is to be reshaped sensibly, there is clear need for the creation of a central body with power to prune selectively courses provided in these other institutions. But while the need has been discussed for years, central government and local authority associations remain at loggerheads over which of them should have majority control.

The Government now needs to resolve this long-standing obstacle, preferably with the agreement of local councils. Otherwise the country is liable to change to a higher education system which, even if less expensive, is certainly not more effective.

FINANCIAL FUTURES

London squares up to Chicago

By David Marsh

A TRANS-ATLANTIC tussle is shaping up over the world's most frenetic and fastest growing money market.

The spectacularly successful financial futures show—trading in forward contracts in interets rates and currencies—makes its debut in London next year after a record-breaking opening run in Chicago.

Financial futures markets strip money down to the status of a commodity that can be freely traded for future dates as well as in the present.

Financial futures can be used to make—and lose—large sums of money for profit-hungry banks and speculators. But they also have the solidly no-nonsense function of allowing companies and investors to "hedge" or insure against risks on volatile foreign exchange and credit markets.

The backers of the London futures exchange—planned to start next spring or summer—believe they have a box-office hit on their hands. Unlike other commercial ventures, financial futures thrive on instability and uncertainty—and there is no shortage of either at present. The London market's first offer of 200 membership places has just been drastically oversubscribed.

The City has the initial low-key aim of complementing rather than challenging the Chicago exchanges, the Board of Trade and the Mercantile Exchange. The Big Two pioneered financial futures during the 1970s, and after a slow start, have been raking in the receipts ever since.

In the longer run, however, the opening of the London market may herald the start of a battle for power and prestige between the two centres.

London undoubtedly faces a struggle to match the drama and crowd-pulling appeal of Chicago. Already the U.S. has tried to transplant financial futures from the shores of Lake Michigan to the money metropolis of New York.

But the Wall Street market which started last autumn is generally regarded as a flop.

There is however more at stake than simply whether the London market can hold its own with Chicago.

As different as port and bourbon, two widely separated types of financial fraternity are being drawn into competition—the silky-voiced bankers of the City and the grizzled commodity market barons of the American mid-West.

One London financial manager who has followed developments on both sides of the Atlantic sums it up thus: "The Chicago people think they've seen off the stumblebums in New York and now it's the turn of the City. In London, on the other hand, we say: "Who are these hicks in Chicago?—They don't know what these markets are all about."

Financial futures markets allow traders to buy or sell standard quantities of currencies and interest rate instruments at pre-determined dates in the future.

Futures dealing is not for the faint-hearted. In full swing, the Chicago trading floor scene is a cross between Derby Day and the sinking of the Titanic.

The full price of the contract is not paid until it matures, though the buyer must put up a small percentage of the value of the contract as a "performance bond" or margin. Thus, for a relatively small outlay, a speculator or hedger can invest in a large volume of financial instruments.

In view of sharp rises in interest rates, this feature of "putting in a little and getting a lot"—as one Chicago dealer puts it—has attracted a lot of people into financial futures in recent years. It also heightens the risks.

Turbulence on the currency markets and—more recently—unprecedented volatility of U.S. interest rates have provided a powerful engine for growth of the financial futures markets. By buying or selling, say, Treasury bills or D-Marks at set rates for three or six months ahead banks, brokers, companies and investment institutions can "lock in" the cost of the transaction and guard against unfavourable rate fluctuations.

Testifying to the staggering growth of the Chicago markets, monthly trading volume in foreign currencies and Treasury bills on the International Monetary Market, the financial futures division of the Mercantile Exchange has expanded more than 30-fold during the last five years. Volume during the first five months this year rose 35 per cent compared with the same 1980 period.

On the Board of Trade, the older of the two exchanges (it started in 1848), the increase in business has been even bigger. The Board trades only interest rate futures (mainly Treasury bonds)—and it is here, rather than in currencies, that the largest growth rates have been registered this year.

Interest rate future volume at the Board has risen more than 100-fold since 1976—and volume so far this year is running at double 1980's level. (Volume figures for the two exchanges are not strictly comparable because of the different sizes of contracts. The IMM's Treasury bill contact, for instance, is for $1m, while the Board trades in Treasury bonds in units of $100,000.)

Because they are running out of floor trading space, both exchanges are planning to move soon to new and bigger buildings in downtown Chicago.

Significantly, financial futures trading is growing much faster than the traditional commodities—everything from live hogs to soya beans—traded on the exchanges. Many dealers tend to move from pork belly trading to Treasury bills when they realise where the growth and the money are.

As well as responding to volatility futures markets are widely suspected of contributing to it too. Both the West German Bundesbank and the New York Federal Reserve Bank believe that trading on the International Monetary Market can add to currency fluctuations.

With the sterling/dollar the most widely traded currency contract on the IMM last year the Bank of England also keeps a watchful eye on Chicago. Heavy selling of pounds on the IMM was one of the main factors behind sterling's fresh plunge last week.

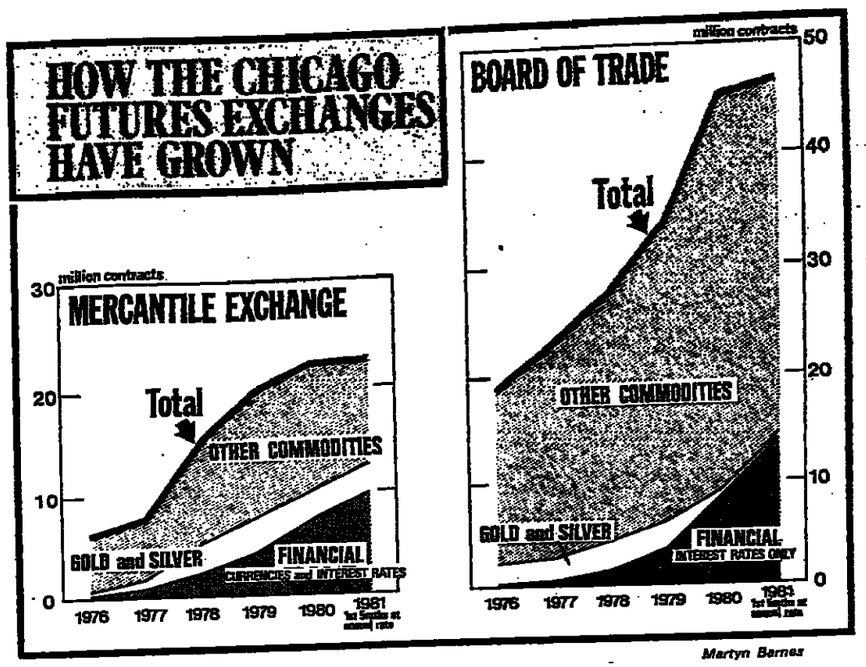
The market that has missed out is the New York Futures Exchange, a subsidiary of the New York Stock Exchange. It was set up amid great fanfare last August. But Treasury bond and bill trading has been disappointingly low and no currencies have been traded at all since February.

New York's chief problem is that it has failed to attract the professional dealers — and straightforward gamblers—who have supplied liquidity to the Chicago exchange for generations. Without this element, commercial orders have simply dried up. The same fate could await the London market.

NYFE hopes for a shot in the arm when new contracts—certificates of deposit (CDs) in both domestic and Euro-dollars—are introduced on all three U.S. exchanges.

The New York exchange is due this week to start futures trading in domestic CDs, following the green light from the Commodity Futures Trading Commission, which regulates the commodity markets and the financial futures industry. The other two exchanges also hope to be given the go-ahead soon.

Meanwhile, underlining the fierce Chicago competitive spirit, the Board of Trade is toying with the idea of introducing 24-hour trading in key commodities perhaps next year. This would be part of a deliberate bid to win business not only from the City's financial futures market but also from the London gold futures exchange which is planned to start this year.



Martyn Barnes

HOW TO USE FINANCIAL FUTURES

THE TWO essential elements in the financial futures equation are (a) the price agreed in advance on the futures contract and (b) the price of the contract when it reaches maturity, which depends on subsequent movements of the spot price of currencies or interest rate instruments on financial markets.

The difference between (a) and (b) is the profit or loss accruing to the trader. One example of where futures trading can be used to reduce risks is when a U.S. pension fund forecasts a fall in interests rates but does not have the money to put into an outright deposit. Instead, it buys a futures contract in three month U.S. Treasury bills.

If interest rates do indeed fall, the price of the contract would rise. The pension fund can sell for a profit after three months—gaining compensation for the loss it would otherwise have suffered because of the lack of cash to make the outright investment.

Many banks and investment institutions buying new issues of U.S. Treasury bonds these days automatically hedge their positions by selling forward on the futures market.

If interest rates rise, the capital value of the newly-purchased bonds would fall. But banks would be compensated for this loss by an equivalent fall in the value of futures contracts. This would allow them to make a profit by buying back an equivalent Treasury bond contract at below the originally agreed selling price.

Companies hedging forward export and import contracts can use the financial futures markets as an alternative to the forward rates quoted by banks.

Wanted: 'a definite group of speculators'

MR JOHN BARKSHIRE, the chairman of money brokers Mercantile House and prime mover of the plans to set up a financial futures exchange in London, is regarded with respectful curiosity by the gritty commodity dealers on the Chicago trading floors.

Mr Barkshire, public school-educated and a member of the MCC, looks a world apart from the frozen chicken trading pits of the American mid-West.

As chairman of the steering committee working to set up the London market, Mr Barkshire has spent every lunchtime during the past four or five months talking about financial futures.

His lunchtime programme of educating potential users is booked up until September. When he went to Japan for the day recently to open Mercantile House's new offices in Tokyo, financial futures were the main topic of conversation there as well.

There has been no shortage of interest in the City about the new venture — and some envy from the Continent. Apart from the U.S., financial futures exchanges are already operating in Canada and Australia, but London's will be the first in Europe.

The steering committee's offer of an initial 200 membership places at £20,000 apiece (only one sixth of the price of a Chicago Board of Trade seat) has been well oversubscribed and a ballot will have to be held to decide allocations.

Most of the 342 applications have come from banks (including all of Britain's clearers and several large U.S. banks), stockbrokers, discount houses, commodity brokers and bond dealers. Around 10 brokers from Chicago have applied to join, as well as a few institutions from the Middle and Far East and a smattering of wealthy individuals.

London plans to offer futures contracts in the dollar against sterling, D-Marks, Swiss francs and yen, together with short-term Eurodollar and sterling interest rates and gilt-edged stocks.

Mr Barkshire is undaunted by the failure of New York to challenge the Chicago exchanges. "New York simply duplicated Chicago—the same time zone, the same contracts and no commercial base to provide liquidity. The London market will complement Chicago because of the different time zone. And we will attract liquidity from the successful and highly liquid London money markets."

Not surprisingly, Chicago has a different view. According to Mr Leo Melamed, special counsel to the Chicago Mercantile Exchange, the London market is "not a heavy favourite."

Mr Melamed says Chicago has encouraged the formation of the London market because it will broaden the use of financial futures. But the London exchange will need a "definite group of speculators to create activity."

Noting that London institutions are trying to gain experience of the Chicago scene by sending dealers to examine the U.S. markets, Mr Alex McCallum, a vice-president at the Mercantile Exchange, jokes that the London market could do worse than importing 50 brokers from Chicago to start the ball rolling.

British company treasurers have been examining the proposed market, but look certain to make caution their watchword.

MEN AND MATTERS

Aston Martin's over drive

Much head-scratching speculation in the motor industry about what is going on under the bonnet of Aston Martin. Managing director John Symonds quits next month just as the illustrious old sporting carriage company at Newport Pagnell gets on the move again after its January takeover by Pace Petroleum and CH Industrials.

Symonds is going to an unspecified job in engineering, but outside the motor industry in which he has worked for more than 30 years since joining the old Rootes commercial vehicle operations in Luton from school.

He seems anxious to dispel any notion that he has not been getting along with Pace's ebullient Victor Gauntlett or the more conservative CH boss Tim Hearley. Aston's co-chairmen. "It's difficult to give a single, specific reason for leaving," he says. "It's certainly not in a fit of pique or animosity. But just looking at my career in general, it appeared an appropriate time to make a move."

Yet Aston's ambitious drive towards a surer financial future under its eighth set of owners since the early 1920s would seem to be just the job for Symonds.

The company intends to add to its primary business of producing a few luxury cars a week by selling its technical and engineering skills to other manufacturers and, probably, by making a range of up-market versions of other cars. This should add to the broad across-the-industry appeal and close teamwork that attracted Symonds to Aston two years ago from a specialised slot in the volume car industry at BL's Pressed Steel Fisher.

Needs felt then have now been fulfilled, Symonds responds. Not least in the successful marrying of Aston's craft skills with more efficient production techniques to achieve a 20 per cent improvement in productivity without anyone blowing a gasket.

Food counter

David Thompson only just finished his shopping in time for Wimbledon at the weekend —quickly snapping up a lot of tinned gooseberries and a couple of processing plants from the receiver of Lockwoods Foods. The lot went into his Hillsdown Holdings bag which already contains some 50 businesses ranging from stationery to chemicals with a turnover last year of £77m.

Thompson's business appetite, however, was sharpened in the food trade. Grandfather and father before him were in meat and it was only in 1975, seven years after the family business had gone public and been swallowed by J. B. Eastwood, that he branched out on his own.

Hillsdown subsidiary Swan Wood International now claims to supply 90 per cent of Britain's £7m market for frozen rabbit which it imports from China.

Thompson shyly admits that he has never eaten rabbit. But his ruddy complexion glows with relish at the prospect of tackling Lockwoods business leftovers. With former Lockwoods director Colin Lazenby installed as his chief executive today, Thompson reckons he can revive consumer interest by applying more marketing expertise to a business which had been languishing under old-fashioned labels like Hunters Roly-Poly and Be Ze Be Honey.

Means business

The Government - sustaining economic optimism of the London Business School seems to have been rapidly justified in one area at least—that of its own finances. While the universities are to have their grants cut by an average 8.5 per cent over the next three years, the LBS will get a near 15 per cent increase to £1.49m.

This exception to its own forecasters' general rule of falling or stable public expenditure is due mainly, says deputy principal Professor Peter Moore, to the development of the School's new academic block and student accommodation in Park Road.

When the LBS embarked on this £3.6m project, there were many who considered it a bit of a gamble, given the effects of the recession on the demand from industry for special management courses.

The UGC obviously regards the expansion plans now as a good bet. Student numbers will increase by 70 per cent to 290 and the UGC is not only increasing its recurrent grant but chipping in another £100,000 for furniture and equipment.

Even so, says Moore, the School's spending per student ratio will decline over the coming years—though not nearly so fast as it will at Manchester Business School. Manchester's grant has been cut by £130,000 even though its student numbers are due to rise by 42 per cent to 170. No wonder the outlook is becoming even gloomier in the North.

Arts pages

Though there is much to admire in the pink pages around me, I must confess I had never quite seen them as an art form. But while other newspapers may provide the wrapping for tomorrow's fish and chips, the FT has become a basic material for the works of Swiss artist Liliane Levy.

No sooner has her husband, a former Zurich shoe retailer turned farmer near Ashford, Kent, finished his reading than Mrs Levy puts the paper to more aesthetic use. It is not merely the colour that pleases her, but the texture of the newsprint as well. Not so much the design of the headlines that fits into her scheme of things but the messages they convey.

Mrs Levy, who now teaches art and has exhibited in Switzerland and Italy, uses the material alone, weaving it into briskly whirling shapes; and, more ambitiously, as a backcloth on which she superimposes drawings and photographs.

The FT pages feature particularly prominently in a series of three-dimensional works which Mrs Levy produced following an archaeological trip to Peru recently. "The FT headlines seemed to me to capture the essential impact of European business on a primitive and mystical country," she says.

All at sea

From the University of Chicago, home of Professor Milton Friedman, comes news of an exciting discovery: Christopher Columbus was an economist. The researchers admit they are still looking for academic proof but say the facts are self-evident. When he set off, he did not now where he was going; when he arrived, he did not know where he was; and he did it all on public money.

Observer

FINANCIAL TIMES SURVEY

Monday July 6 1981

Japan

THE INFORMATION REVOLUTION

CHARLES SMITH, Far East Editor, examines here the impact of the revolution in micro-electronics upon Japan's economic resurgence. Other writers in this survey are Richard Hanson (Tokyo Correspondent), David Dodwell, Mike Tharp, Saburo Matsukawa and John Hartley.

SINCE THE end of World War II, when it emerged from total military defeat with its industry in ruins and its technology years behind the West, Japan's economy has undergone a number of striking changes.

The absorption of Western know-how in industries like steel and shipbuilding and its application on a far larger scale than had been dreamed of by the originators was one of the forces that boosted the economy into orbit in the fifties and sixties.

From the mid-sixties onwards Japan's supply-led investment policies (meaning, basically, the strategy of installing massive production capacity first and only thinking how to sell the resulting ouput afterwards) produced the highest GNP growth rates in the world and established the Japanese economy as second to that of the U.S.

Phase Three in Japan's post-war economic growth is the phase which this survey attempts to describe. It has involved a striking improvement in both energy and man-power productivity rates over the past five years, allowed the economy to sail almost unscathed through two oil crises and has helped to create what are almost certainly the worst tensions in existence at present between any advanced industrial country and its trading partners.

The key to the revolution has been the diffusion and penetration of advanced electronic technology into all departments of Japanese life but, in the opinion of many, this already remarkable process may be only just beginning. The 1980s look like being the information era for Japan just as the sixties and early seventies were the era of conventional mass production.

The simplest way to appreciate what has been happening in Japan in the field of electronics — and information related products — during the past five years is simply to study the production statistics for major industries. In both computers and integrated circuits, the basic raw material of today's computer industry, Japan ranks second after the U.S. and well ahead of any European countries. The growth rate of both industries in Japan also happens to be the highest in the world—ranging between 15 and 20 per cent in recent years.

At the same time the quality and sophistication of their products has been improving rapidly.

Two Japanese computer manufacturers, Hitachi and NEC, today claim to offer computers with a larger memory capacity and superior overall performance to IBM's best — although it does not necessarily follow that Japan can match American skills in software.

In the IC industry Japan ranked as an also-ran until at least the mid-1970s but can now claim to be equal with, if not actually ahead of, the U.S. in the production of IC memories.

Japan is estimated to control more than two-thirds of the world market for IC memory chips with 64 kilobit random access memories. The defect ratio of such chips produced by Japanese factories has been estimated at about one-sixth of that for U.S. microchips. In microprocessors Japan has yet to match American production volumes, and possibly standards. But this looks suspiciously like a case of deliberate abstention by the Japanese manufacturers from a market which does not offer the same economies of scale as the memory chip market.

The subject of how Japan has applied electronics techniques merges imperceptibly into the question how and why it is turning out electronics products in such quantities. To sum up a complex situation — Japan has already achieved the world's highest computer population (per head of humans) as well as the highest rate of diffusion of robots in its industries. But it may nevertheless only just be starting to realise the full possibilities of these two standard products of the information revolution.

"A computer in every home — robots in every industry" is the motto of one university professor who specialises in some of the more abstruse forms of advanced electronics. This may well be a vision for the relatively near future rather than for a distant and improbable one.

The use of computers and robots in every day life and in what used to be regarded as conventional mass production industries is one branch of the information revolution in which Japan is undoubtedly a leader. Japanese pin-ball, pachinko, parlour operators, have long since used mini-computers to assess the yield rate of their machines while a typical Japanese integrated steel plant employs almost as many computer programmers and operators as it does conventional blue collar workers.

Computerisation and Robotisation, however, are not the end of the story. Japan led the West from the late 1960s onwards in using cheap mass produced integrated circuits in new consumer gadgets such as desk top calculators as small as visiting cards which can do square roots and multiplication and division.

More recently Japan has began to tackle the question of how to use ICs to save energy and increase efficiency in the heavy electrical industry.

Last but by no means least Japan is active in the two kindred areas of optical fibre development — where the state telecommunications monopoly, Nippon Telephone and Telegraph, is a leader — and in peripherals, a blanket phrase covering devices that can read, hear and even smell and which provide an essential link between the core sections of information devices and the outside world.

The revolution in micro-electronics which has caught hold of Japan means that for the forseeable future, that is for perhaps the next decade or so, industries which produce electronics goods or can use their technologies (or, as in the case of the chemical industry, are suppliers of materials used in the electronics industry) will remain the main growth areas of the Japanese economy.

The revolution also means that, unless Western countries rapidly follow suit, Japan may continue to find itself flooding Western makets with goods that the U.S. and Europe either do not yet produce (as has been the case with the two Japanese varieties of video tape recorders) or cannot make with the same degree of sophistication.

Before all this is ascribed to the inhuman efficiency of Japanese workers, or to the ruthless cunning of Japanese managers and economic bureaucrats, it might be as well to take a look at the origin of the electronic revolution in Japan if only because, by doing so, light may be shed on where the country is going to go next.

The "informationisation" of Japan (to use a monstrous new English word recently coined by the Ministry of International Trade and Industry) can, at the risk of gross oversimplification, be ascribed to two background causes: the existence of a hyper-competitive environment in Japanese industry (at least compared with Western Europe) and the vulnerability of Japan to energy and other raw materials shortages.

Japan's competitive environment, symbolised by the large number of independent companies in many key industries and their reluctance to merge with one another, explains why there has been a rush to be first on the bandwaggon of introducing electronic techniques into so many new sectors. Energy vulnerability, though often regarded as the Achilles Heel of an otherwise strong economy, explains why Japan has launched a concerted national effort to increase productivity and to build a new industrial structure which would use the minimum input of imported energy.

The slogan under which this was done—promoting "knowledge-intensive" industries—actually dates from just before the first oil crisis of 1973 but became considerably more compelling afterwards. It amounts to an emphasis on the need to step up added value across the board which, in practice, has often turned out to mean the same thing as introducing electronic techniques into industries that were once purely mechanical.

A factor in Japan's success which cannot be ranked on the same level as competition or external necessity, but which nevertheless deserves very careful consideration in any review of the country's recent progress, is technological innovation. Japan did not invent the basic technologies which have made possible its new phase of successful growth and would appear, even today, not to have drawn level with the West in its capacity to produce fundamentally new ideas in science or engineering.

The fact that Japan has not been an originator, but rather a refiner and applier of the inspirations of others, has turned out to be both a strength and a weakness.

It is a strength in that Japanese companies spending perhaps one-third as much as their American counterparts on research and development have nevertheless managed to come up with products that have beaten the U.S. competition in the market place—the reason being that nearly all of Japan's R and D is market-oriented whereas in the U.S. much research is "unfocussed" and therefore likely to cost far more in relation to marketable results.

Japan's relatively slight involvement in basic R and D is a weakness for two other reasons, one of which may never matter (depending on the luck of the

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Production line at the Matsushita (National Panasonic) TV plant in Tokyo

CONTENTS

Information revolution

CONTINUED FROM PREVIOUS PAGE

draw) although the other is most certainly significant.

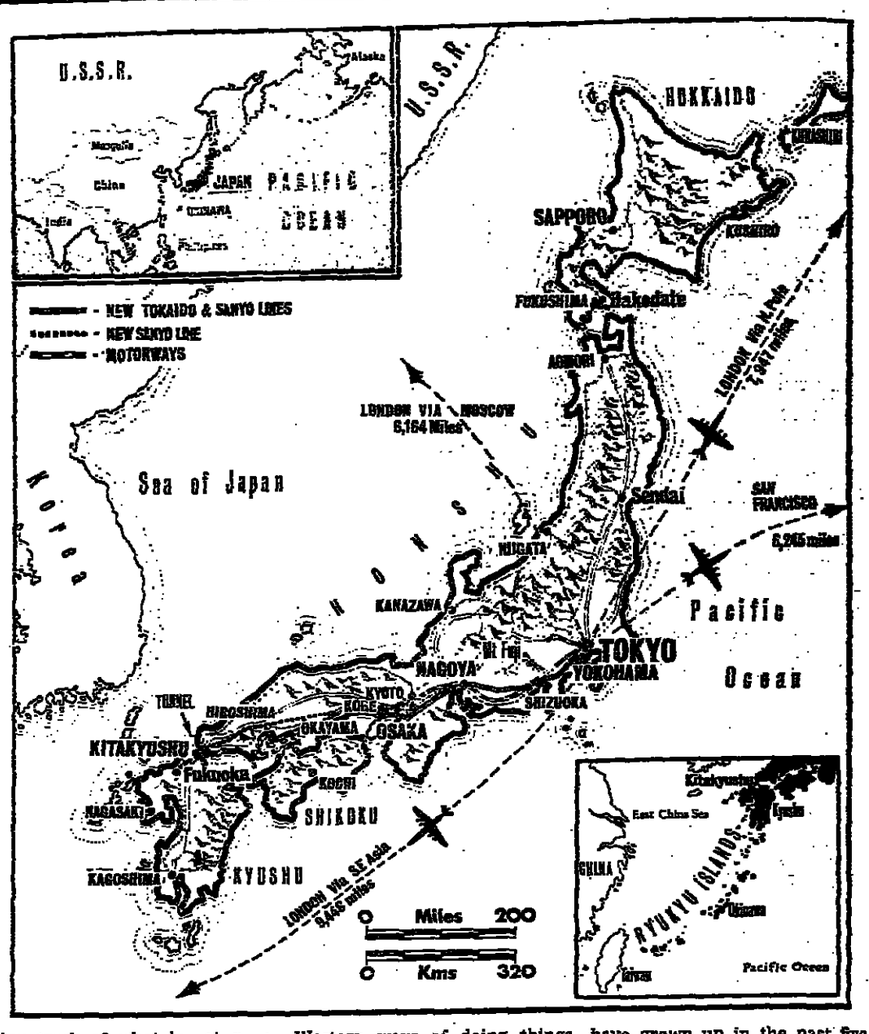
The first worry is that Japan could, just conceivably, be left badly behind when the next generation of new ideas (in electronics or any other industry) is introduced by American or European researchers. The second is that, by cashing in on the ideas of others while failing to contribute to the international "store" of knowledge, Japan could be exacerbating the resentment of trading partners against its manufacturing and marketing successes.

Japanese analysts who are worried about the imbalance between their country's manufacturing and marketing preeminence on the one hand and its relative backwardness in advanced technology on the other have two lines of approach on how to solve the problem. One is that Japan will "never" (or almost certainly never) equal U.S. performance in advanced research until it is obliged to spend heavily on arms development. A second view is that the country should make a conscious and deliberate attempt to develop new forms of technology which might "interlock" with technologies being developed in the West.

Failure to achieve an interlocking (as opposed to a dependent) relationship with American technology could, in the view of one well-known Japanese economist, result in Japan becoming the manufacturing centre of the world while remaining almost permanently at odds with its trading partners in advanced Western countries.

Viewed from the West, one of the main challenges posed by Japan's information revolution is the very simple one of keeping track of what is going on. Japanese businessmen and technicians mastered English after the war to be able to absorb the industrial know-how that was to be essential to the country's economic resurgence. Today, Japanese industry is producing an immense range of innovative (if marginal) improvements in Western ways of doing things which the West needs to be able to understand and evaluate if it is to keep pace in the competitive race.

Recognition that an information gap exists (on the Western not the Japanese side) may be the first pre-requisite for ironing out some of the inequalities that have grown up in the past five years as Japan has forged ahead with its new phase of economic development. Bridging the gap is something else again — but is hardly likely to be possible if the predominant reaction to Japan's success is how to prevent it from impinging on Western economies.



Rapid underlying changes in economic structure

ECONOMY

RICHARD HANSON

JAPAN IS anticipating a fairly long period of low, by its standards, economic growth. Government forecasts for the 1980s set a real rate of 5 per cent to 6 per cent (though these may be revised downwards by the Economic Planning Agency).

In the financial year which ended March 1981, Japan successfully absorbed the inflationary impact of the second oil crisis. The economy is currently climbing out of the deflationary trough created by the last round of steep oil price increases.

Real growth in 1980-81 was 5 per cent against 6.1 per cent in the previous year. The rate of inflation fell back to around 6 per cent by year end from a peak of nearly 9 per cent early last autumn.

The patterns of economic growth since the first oil crisis broke in 1973 have been rather disturbing to Japan's trading partners, lapsing, as was the ease again last year, into periods of strong export-led activity.

Domestic factors last year contributed less than one quarter of real GNP growth. The protectionist reactions to surging exports are one portent along with continued sluggish economic activity in many western countries of the difficulty of maintaining export growth. This year economists are counting on an upturn in domestic private consumption, which grew only 1.3 per cent in 1980, and continued corporate spending on new plant and equipment as the recovery widens. The official 1981 forecast of 5.3 per cent growth looks rather steep to many.

Theories

What the GNP growth figures do not reveal is how rapidly certain underlying changes in the structure of the economy have been taking place. In many cases quite independently of ups and downs in the business cycle which traditionally have determined economic behaviour.

Since the income doubling policies of the late 1950s launched the economic miracle, Japan has proved a model for theories linking real rates of growth with real rates of investment. Capital spending from 1965 to 1973 averaged annual increases of 15.1 per cent, dropping to 4.1 per cent in 1973 to 1979.

An even more telling indicator is the rate of spending on plant and equipment compared with GNP. This hit a low of 12.1 per cent in 1965 during the first major recession of the high growth period.

Since 1970 when spending peaked at 19.5 per cent, the indicator has remained well above the 15 per cent level. By comparison President Reagan is hoping his package of dramatic economic measures will eventually lift U.S. spending to the 15 per cent mark from about 11 per cent last year.

Japan can afford to maintain a high rate of investment, in part because the average Japanese citizen has not lost his or her enthusiasm to save—about 20 per cent of income against 5.6 per cent in the U.S. last year—creating large pools of investible funds.

There have, however, been significant changes in investment habits, the burst of spending which occurred in the late 1960s, and the record high levels of 1973 and 1974—before the economic bubble burst—was aimed primarily at capacity expansion. The fact that many Japanese manufacturers had new plant capacity was a plus in gearing up for exports to stimulate economic growth again. But the oil crisis left broad segments of industry, such as steel, with chronic overcapacity, and with plant which consumed large amounts of energy.

To their credit, Japanese managers faced up to the challenge. Many fortunately had funds at their disposal because of the slowdown in economic activity. By using them effectively Japan turned the oil shock into an advantage of sorts, jumping ahead of the West in making adjustments which were essential for overcoming the second oil crisis.

In the upturn in capital investment seen since 1978—when spending rose 10 per cent—new patterns emerged distinct from those of the era of high growth. These can be summarised as: A gain in the relative importance of spending to replace obsolete equipment as against spending to increase capacity. Investment aimed at rationalisation, reducing labour and saving energy based on new technology. Investment for research and development of new products. Typical examples are semiconductors, computers, numerical control machine tools and industrial robots.

Japan quickly became the most efficient user of energy in the industrial world. Moreover, investments of this nature have contributed to substantial improvements in productivity. A second result is that research and development for new products, with more value added, leads to new areas of demand for new industries.

Technology

The implication of these shifts is that future plant and equipment spending plans will be linked to new technological development. Likewise, future gains in productivity may depend heavily on how successful business—with some help from Government — is in developing new technology. In 1979, Japan spent the equivalent of 2.29 per cent of its GNP on R and D, which means it has some catching up to do before reaching its goal of spending 2.5 per cent, a level common in the U.S. and other advanced industrial countries.

In addition to the technology gap the economy must find ways of coping with the problem of ageing. Japanese society is ageing at a faster rate than in the West. By 1985, about 40 per cent of Japan's workforce will be aged 45 or more, giving it the oldest workforce in the world. At least one senior Government official ranks the age crisis second only to energy crisis in importance.

Changes within the structure of the economy since the oil crisis already reflect an adjustment process, most clearly in the growing importance of tertiary including service-industries where employment is concentrating.

In production value the weight of tertiary industries grew to 52.6 per cent of the total in 1979, compared with 49 per cent in 1974. The problem will be to impove productivity within tertiary industries which tend to be labour intensive. The experience of the banking industry is that the solution depends heavily on extending the computerisation of many functions, like retailing. Large scale computerisation of the retail side of banking since 1972, according to one study, saved the equivalent of 118,190 jobs among the 13 city banks.

At the same time jobs are being created at a rapid pace in new industries such as computer services—including software development and data processing. Software alone is increasing its employment at a rate of about 10 per cent a year, and should reach 150,000 in four or five years—the equivalent of two Nippon Steel Corporations at today's level of employment.

Meanwhile, companies must cope with problems of a shortage of workers trained to meet the demands of high-technology development. Considerable thought and effort is going into re-training older workers, who participated in Japan's postwar industrial revolution, to play a part in what, for the purposes of this survey, is called the information revolution.

This may be the first time in history that a single group of workers has been part of two revolutions in one generation.

The main shopping area in East Shinjuku, Tokyo. The stores are open on Sunday from 10 am to 7 pm, when traffic is not allowed in this particular area

Surprising amount of anxiety over future developments

TECHNOLOGY

RICHARD HANSON

JAPAN'S ABILITY to promote and use new technology is widely recognised as one key to its successful adjustment to the oil crises of the past decade. In areas such as computers and microelectronics, Japan has pulled even with and in some ways edged ahead of developments in the West.

But below the surface in Japan there is a surprising amount of anxiety among businessmen and bureaucrats over how their country will stack up in the fast approaching era of "future" technology. The next generation of technology for electronics (and, consequently, in a wide range of other activities) will be radically different from what is now in production, or under practical development.

Japan is worried that its scientists and engineers will somehow fail to meet the technological challenge being mounted in the U.S. (Europe is, unfortunately, not considered a serious contender) in taking the next leap in computers and related technology.

The stakes are very high. A radical change in computer architecture, for example, could leave the Japanese industry floundering under the weight of assets suddenly turned "old."

The irony of having matched advances in Western technology, and being ahead in some cases, may be that it takes away one of the advantages enjoyed in the past: following the lead of the West, and thus avoiding the high cost of blazing new paths in technology on its own.

Japan's talent is in identifying new areas of technology, sometimes by such simple means as close study of Western trade and scientific publications, and then adapting whatever is suitable to its industrial and other needs. This usually involves a fair amount of guidance from concerned government ministries and agencies in establishing attainable goals.

Helping to make the process work is a rare degree of manufacturing skill, with particular attention to quality and reliability, within industry, and an unabashed enthusiasm for embracing the latest advances in technology throughout the country. In some cases, new technology products are bought in before companies have a clear idea of how to use them (small computers being a prime example these days).

But there is a strong sense among companies most heavily involved in high-technology that the old system will no longer work, or at least that it alone is inadequate at this "turning point" in technology. What seems to be required is an unprecedented burst of creativity and innovation inside Japan and a willingness to spend a great deal more money on research than has been necessary in the past.

Future technology, according to most reckoning, will probably cost 10 times as much as the present generation did to develop. Moreover, the chances of success are greatly diminished by the sheer complexity of problems posed by technology now appearing on the horizon. (These difficulties are discussed elsewhere in the survey.)

Finding the money may prove difficult, especially if large infusions of cash are expected from the Government. But Japan has proved it can squeeze a great deal of result from very little money. Most Japanese R and D tends to be "cost oriented" (in other words, geared toward producing as much as possible with limited funds). Researchers in the U.S. tend to have "performance" oriented goals. Deciding to send a man to the moon and then spending whatever it costs to do so, is one example.

In recent decades Japan has spent less of its national income on R and D than the U.S., USSR, West Germany and Britain (only France has spent proportionately less). The most recent statistics are not available, but Japan in the past decade has spent the equivalent of 2.1-2.2 per cent of GNP on R and D annually. Others have spent around 2.5 per cent or above, with the USSR on top spending over 4.5 per cent annually.

The most striking feature of Japan's R and D, however, is that most of the money spent (roughly 65 per cent) comes out of the pockets of private industry. The Government in Japan provides just over a quarter of the funds, compared with half or more in the U.S. and UK.

One important consequence of a lack of heavy spending by the Government (partly traceable to low defence budgets) is a wide gap between "basic" research and applied, or development research. Only a little more than 15 per cent of Japan's R and D falls into the former category.

Most work is carried on within companies (or national laboratories oriented toward industrial problems) aimed at coming up with practical (ie profitable) uses for technology. A typical research project within a company spends very little on the early stages of exploratory work. Japanese managers are very willing to turn on the cash flow when an idea looks as though it will result in a saleable product.

The idea of matching new technology with a product has proved successful ever since Japan began turning out transistor radios in the 1950s. The most important recent example of how this works is in semiconductors. Japan did not invent semiconductors, but did discover the first mass-market for memory chips (electronic calculators). Subsequent progress has been largely a matter of finding uses for increasingly high-powered microchips, which in turn leads to further sophistication of the chips themselves.

This process can go on until the limits of present technology (based on silicon semiconductors) are reached. In five years time, a new generation of technology may be on its way in. When this happens Japan's ability to find (or invent) technology will be put to the test.

Importing has been, by an overwhelming margin, the most effective means Japan has had of keeping abreast of new technology. There are some who will go so far as to claim that all postwar successes in technology in Japan can be traced to foreign ideas and technology. (Shipbuilding, optics and some areas of electronics as one official comments, are about the only postwar successes based on "original" reasearch mostly carried on during the war).

The statistics on technology trade show that Japan has been earning more since 1972 than it pays out on "new contracts." (In 1979, Japan earned $1.98 for each dollar paid out). But the cumulative deficit in overall exchanges in technology is still heavy, (earning only 55 cents for each dollar sent abroad).

Trade balance

Moreover, a closer look at what and where Japan trades in technology shows that recent surpluses have been based on a growing traffic in "recycled" technology to the developing world, especially South East Asia where Japanese investment in strong.

Japan's trade balance in technology with the U.S., its main source, is still heavily unfavourable. Cumulative Japanese technolgy sales to the U.S. (to 1979) netted only 13 cents for every dollar which went the other way. The annual balance on "new contracts" improved to as high as 51 cents earned per dollar paid out in 1977, but fell back to 23 cents and 31 cents respectively in the following two years.

A breakdown of trade with the U.S. reveals that Japan is strong in steel technology, ceramics and chemicals. In electranics and communications technology (presumed to be amoug Japan's bright stars), Japan earned only 14 cents in 1979 for every dollar it paid the U.S.

These figures probably reflect in part the fact that Japanese companies are still aggressively in the market for new technology. They could also indicate that U.S. companies are only just waking up to the idea that Japan has something to offer.

Technology generally, however, is becoming hard to get on a "cash on the barrel" basis. The fact that both foreign and Japanese companies realise this is evidenced in the rise of a relatively recent alternative, cross licensing. There were 82 such deals in 1979 compared with only 48 in 1975.

One other way of acquiring technology is, of course, for companies to devote large amounts of money to research and development. In the tug of war betwen pure research and spending for practical research, or new plant and modern equipment, the latter tends to win.

Japanese companies, however, do tend to take a long view of which direction their business is headed, and most organise research staffs and budget accordingly. Hitachi, Japan's biggest electrical machinery maker, and a leader in computers and semi-conductors, provides a sophisticated model for how this works. (Its spending for R and D last year totalled Y116bn, more than any other Japanese company. This still amounts to only 6 per cent of sales, though, or much less than IBM devotes to R and D.)

Hitachi, for the past decade, has divided R and D into two categories of special teams: "A-teams," or those which aim specifically at coming up with a product or solving a problem, and "B-teams," which explore less defined areas and carry on basic research.

An A-team can be formulated quickly and produce rapid results. It draws a leader in most cases from the plant or works where the product will eventually be produced, and other staff from one of several in-house laboratories.

A-teams usually operate for one to two years, and then disband. Hitachi is especially proud of how several years ago a special A-team produced Hitachi's version of the home video tape recorder (VTR) in only seven months. (Work on the key magnetic recording head was done by a B-team, though.)

B-teams tend to stay together for about three years. While for example, an A-team was responsible for bringing into production Hitachi's 64-K bit microchip, a smallish B-team is carrying on initial research in the futuristic Josephson Junction.

Services

The final link, and the one perhaps least understood, in Japan's technology chain is government. Aside from sponsoring national projects like nuclear power and space, which come under the control of the Science and Technology Agency, the Government performs a number of "services" for industry which, when taken as a whole, are almost unique.

An important function (once again) is simply gathering information and uncovering new priorities, a task performed admirably by the Ministry of International Trade and Industry. MITI has at critical times assisted the development of industries such as computers by holding foreign competition back until the industry was strong enough to stand on its own.

A much more tricky feat has been to bring fiercely competing companies together long enough to work on sophisticated development projects, such as the one which set the stage for VLSI production. In such projects MITI provides "seed" money (repayable when the project produces a profit).

MITI's job is made somewhat easier by the fact that information in general flows freely in Japan through a maze of industry associations, government agencies and among companies themselves (especially within related groups of companies).

A more direct government role is played through a unique organisation established under MITI's wing in 1948, known as the Agency of Industrial Science and Technology (AIST), the agency's main job is to help, primarily through 16 research laboratories, private industry in areas of industrial technology which companies on their own would be hard pressed to develop. Its responsibilities also include overseeing a number of projects, like energy saving and conservation, which have become urgent priorities in Japan.

The AIST's budget of just over Y100bn amounts to about 10 per cent of all Government spending on R and D. With these funds it operates one of the most impressive concentrations of national research laboratories in the world, Tsukuba Science City, located in a wooded area about 50 km north-east of Tokyo.

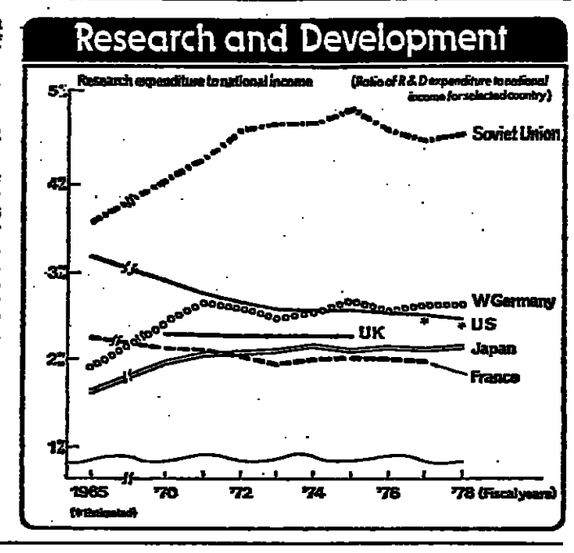
Tsukuba, ideally, should serve as a focal point of creativity. So far, however, the laboratories appear to be operating rather narrowly within their own spheres, except for occasional exchanges on related projects. Neither have any private companies been induced to set up in the area (though there is a national university near by).

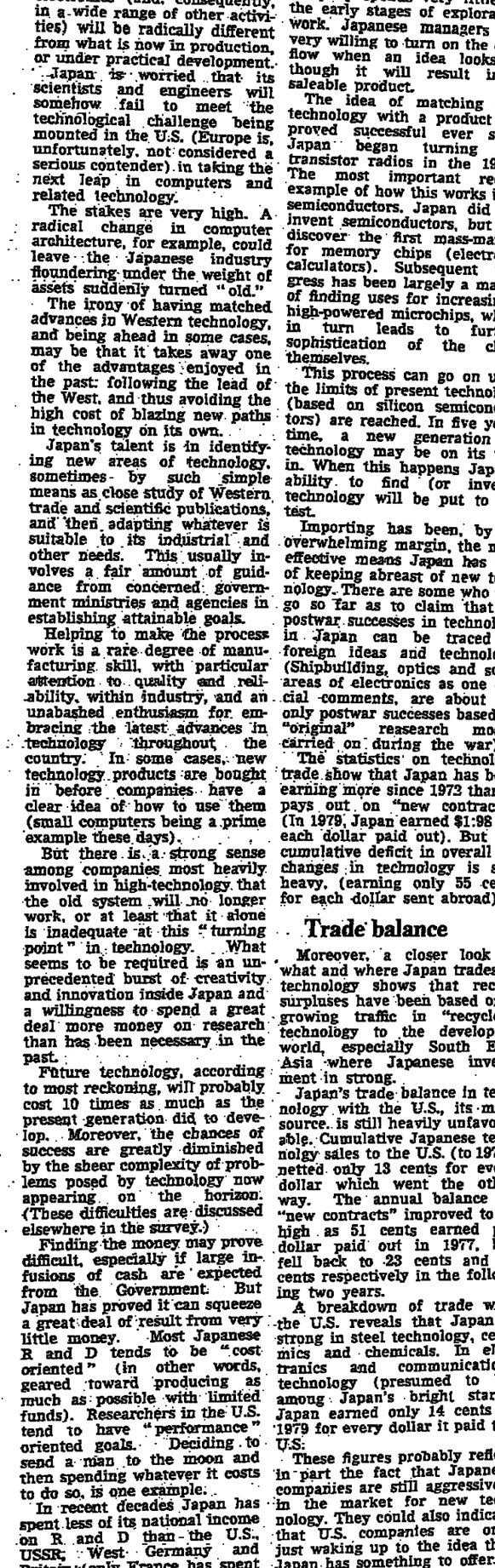
This could change by the time an ambitious science "Expo" is held at Tsukuba in 1985 but for the moment it appears that putting two or three thousand scientists and engineers in the same place in Japan does not necessarily create an environment in which creativity can flow.

TECHNOLOGY TRADE INDICES
(U.S.$ value of exports per $1 worth of imports)

	1971	1972	1973	1974	1975	1976	1977	1978	1979
Total trade (including ongoing payments on old contracts):	0.20	0.24	0.29	0.36	0.39	0.47	0.49	0.64	0.55
New contracts:	0.71	1.26	1.27	1.37	1.42	1.51	2.15	1.23	1.94

Source: Ministry of International Trade and Industry





Vital factor in keeping many Japanese companies ahead

INFORMATION NETWORKS

CHARLES SMITH

INFORMATION gathering and co-ordination has been a key activity for Japanese business ever since Japan emerged from the devastation of World War II by absorbing and exploiting Western technology.

Today, the information gathering systems at work in major Japanese companies are designed, not merely to pick up information from outside, but also (and sometimes even more importantly) to ensure a smooth exchange of knowhow between different specialised departments of the same company—in other words to prevent information "hoarding."

How four different Japanese companies have tackled the problem of making information "work" for them is described in the following set of case studies:

Mr Kazuo Yanagishita, the founder of the Soft Science Group within Mitsubishi Electric Company's Central Research Laboratory, has spent the past 13 years of his life studying ways to promote "creative" exchanges between the 20 different factories and innumerable highly specialised technologies that make up Japan's third-largest heavy electric machinery makers.

Mr Yanagishita says that Mitsubishi has many "excellent" specialists but that communication between people in different fields is not (or at any rate was not) as highly developed as it should have been. His SSG accordingly functions as a kind of "information broker" between various sections of the company (besides making increasingly frequent forays into the outside world to discover opportunities that could provide a challenge for Mitsubishi's technical resources).

The germ of the idea for the Mitsubishi SSG occurred to Mr Yanagishita after a specialised nuclear measuring instrument he had designed (while working as nuclear researcher in the company's central laboratory) suddenly stopped selling overseas after a promising beginning.

Instead of going back to the drawing board to design another instrument, as requested by his boss, Mr Yanagishita decided to find out why sales of his first design had collapsed (the answer turned out to be a worldwide pause in the building of research reactors of which the specialists in the Central Laboratory had been unaware).

Market trends

After dealing with this first problem, Mr Yanagishita began forming an informal group of scientists and engineers from different disciplines within the Central Laboratory who made it their job to compare work under way in their own fields and to study the implications of market trends for different technologies (Mr Yanagishita points out in this context that two new technologies of apparently equal merit can sometimes fare very differently in their subsequent "careers").

The group soon decided that it needed members with business administration backgrounds as well as engineers and scientists, but Mitsubishi's personnel department declined to supply them.

Mr Yanagishita accordingly sent himself to business school, emerging as one of the first, if not the first, Mitsubishi Electric men to hold a degree in both nuclear physics and business administration.

Apart from "technology forecasting" (which means attempting to assess the likely rate of progress in the development of different interchangeable technologies) and "demand forecasting" (meaning the task of assessing how far a given technology may actually serve a useful purpose in the world markets) Mr Yanagishita's SSG undertakes new product studies for Mitsubishi factories which have specialised technical resources but do not always know how to apply them outside the fields for which they were originally developed.

One success of which SSG is particularly proud was a year-long study which enabled a factory making two highly cyclical electrical machinery products to add a third product to its range which faced a "non-cyclical" market and, accordingly, enabled the factory to eliminate peaks and troughs in its work schedules.

The product concerned, a sludge de-watering machine, sounds unromantic enough but provided an exact "fit" for the know-how and other abilities already available in the factory concerned.

Mr Yanagishita began operating SSG on a voluntary basis, attaching notional price tags to the commissions undertaken for various Mitsubishi factories as a guide to the priority to be attached to each study. In 1976, with notional turnover running at around Y300m per year, the group started charging "real" prices and found, to its surprise, that business continued to grow.

The SSG could probably by now do a thriving business outside Mitsubishi Electric if it chose, but clients remain restricted to the company's own factories and technicians (not even other member companies of the Mitsubishi Group are allowed access to the group's services).

Apart from his regular consultancy work for Mitsubishi Electric factories, Mr Yanagishita runs a "brain-storming club" of about 300 members which meets (or at least communicates) weekly to study particular puzzles put up to it from within the company. Ideas produced at brain-storming sessions have resulted in a series of new Mitsubishi inventions, including window cleaning robots (for tall buildings) micro-wave ovens which brown the outside of the food they cook besides cooking the inside and electronic sensors which can predict the "p" waves that immediately precede major earthquakes.

Mr Yanagishita has been asked for advice by a number of other major Japanese companies on how to form their own SSGs or brain-storming groups, and several have now followed suit. Of one other major heavy electrical company Mr Yanagishita says "they would have liked to do something similar but decided it would not work — their engineers are too competitive."

Japan's steel industry probably benefited more from imported technology in the first 15 years after World War II than any other Japanese industry: conversely it has since become one of the Japanese industries which appears to have the most impressive technological lead over its rivals in other countries. Both of these facts have been reflected in the information gathering efforts of Kawasaki Steel Corporation, the third-largest of Japan's Big Five integrated steel manufacturers.

Dr Hiroshi Ooi, the metallurgy Ph.D, who presides over Kawasaki's Technical Development Department, says that every technologically qualified member of the company's board of directors visited Europe or the U.S. at least ten times between 1950 and 1965 (when the Japanese steel makers were absorbing the European invention of oxygen furnace steel making which provided the basis for their post-war recovery).

From 1965 onwards however, the Japanese steel makers began to draw level with and then overtake the West in its ability to develop and apply new technology.

Operating with a staff of about 20 engineers and non-specialists (including female English literature graduates), the Kawasaki TIS acts as the technological memory of the company. Its major product is a monthly in-house Technical Review which summarises an average of around 50 Japanese language articles or papers on new discoveries, some made within Kawasaki itself, some by other Japanese companies.

On the foreign language side, TIS circulates a publication called "Contents Service" which consists quite simply of the contents pages of roughly 100 overseas publications concerned with steel making.

Contents Service is distributed to about 200 points around the company and generates roughly 10,000 inquiries per year for the full texts of articles in the overseas magazines it summarises.

Language is not a problem for Kawasaki's technologists when it comes to using Contents Service since every one of the company's graduate engineers undergoes compulsory English language education.

Access to the 600 specialised technical papers which are covered every year in the TIS Technical Review at the moment takes place via a dual indexing system which lists "key words" and authors' names for each article. But this will change in another 18 months or so, says Dr Ooi.

Kawasaki's in-house computer programmers are working on a system which will allow engineers throughout the company to obtain instant access to the whole of the Technical Review "memory bank" via an on-line computer system.

The technical breakthrough involved here was the development of a cathode ray tube display unit which can show any one of the several thousand kanji or Chinese characters used in the review.

Information gathering — and the passing of precious items of news to client companies — is one of the major activities of the nine general trading companies or "sogo shosha" which collectively handle over half of Japan's exports and imports.

According to Sumitomo Corporation, the fifth largest but one of the fastest growing of the nine — the process works something like this. The big shoshas between them maintain a total of about 4,000 highly qualified Japanese graduate executives in a network of offices which covers the entire world. All of these executives, plus a large number of "trusted" foreign employees, are expected to track information gathering as one of their main jobs and are encouraged to communicate directly with specialised product departments in the company's head office in Tokyo.

Sumitomo itself has 800 Japanese executives overseas (nearly half the number of diplomats posted in Japanese embassies). About 45,000 messages, or enough material to fill 300 pages of a normal sized daily newspaper, pass over the company's communication network each day.

Messages sent on the network are coded for the attention of head office product departments which are likely to be interested but are also seen by the Control Department (which takes part with other trading companies in a regular information exchange session with Japan's Foreign Ministry).

Newspapers

Sumitomo has its own privately-controlled telecommunications system for handling messages between Tokyo and major overseas offices. Messages to and from offices in smaller or more remote places pass through communications "substations" in London, New York and Paris and are then routed on by commercial telex.

Information gathering by the men on the spot, says Sumitomo, is done by normal methods such as reading local newspapers or talking to business contacts but overseas staff are encouraged to be versatile.

Sumitomo's information gathering network is designed primarily to gather in the vast quantities of commercial news that enable the company to handle some Y4,500bn ($20bn) worth of sales contracts per year. It is not specifically designed to handle technological information although the ratio of messages passing over the system that involve technology is steadily increasing.

One Japanese trading house, Mitsui, has, however, established a specialist technology information gathering system.

The system came into existence in 1955 when the Mitsui group decided to enter Japan's fledgling petrochemical industry (now the world's second largest), but could not do so without obtaining know-how from overseas. It has flourished as an all-purpose "broker" of technological and marketing information between Japan and the outside world although the emphasis remains on meeting the needs of the Mitsui "family" of companies.

According to Mr Kihei Kawashima, the agricultural chemist who is general manager of the Mitsui Technical Development Division, information gathering, for Mitsui, is not primarily a matter of installing the latest electronic gadgetry. The "core" of the system, in Kawashima's view, is the network of personal relations that members of the division have managed to establish over the years with the top management of companies in the U.S. and Europe. "Each of our 20 or so overseas staffmen remains in his post for three to four years, during which time he is expected to establish extremely close relations with one company," he says. "If each man does his job properly we can expect to establish 50 or 60 close relationships over a 10-year period which is enough for us to be able to do some very valuable business."

Mitsui's "close relationships" in Britain include one with the sugar refiner, Tate and Lyle which has developed valuable expertise on the conversion of sugar into chemicals (but needed Mitsui's chemical know-how and marketing capabilities).

Another valued UK associate is Courtaulds whose textile technology was far ahead of Japanese levels when Mitsui first established contact, but which was also in a position to use Japanese marketing know-how. Mitsui's technical development division served as a channel for Tate and Lyle's sugar technology to "flow" to Mitsui Sugar and for Toray (another member of the Mitsui Group) to acquire know-how from Courtaulds.

Mr. Kawashima admits that Mitsui's "all-purpose" technology gathering machine is in competition today with the specialist systems run by manufacturers but says there is a need for the system for two reasons. One is to fill gaps left by the manufacturers. The other is that trading company engineers and other technical specialists take a more "market-oriented" view of technology than the men who work in big companies' research laboratories.

Whatever else it proves, the success of the Mitsui operation shows that there are many possible ways by which big companies can inform themselves of what is going on in the world around them.

Thanks to the number of ways in use in Japan, the Japanese business world is almost certainly better informed about the progress of technology in the west than the west is about developments in Japan.

Mr Kazuo Yanagishita (left) has spent 13 years studying ways to promote "creative" exchanges between 20 different factories. Right: Dr Hiroshi Ooi, who presides over Kawasaki's Technical Development Department

Big business seeks new ideas for high technology ventures

CORPORATE STRUCTURE

RICHARD HANSON

TO A far greater degree than in the West, new technology and new industries fuelling the information revolution in Japan sprung from the corporate bodies of long-established companies. Usually, the larger the enterprise, the more likely it is to be involved as a pioneer in new fields.

By contrast, the U.S. ability to move venture capital into new ideas regularly results in a large number of new companies exploiting technological advances. Semiconductors, microprocessors and now personal computers are prime examples of how the system works in America. In Japan each of these industries is dominated by the NECs, Hitachis, Toshibas, and other familiar names.

One reason for this difference lies in how technology is developed in the U.S. where it is common for the inventor to form a company to exploit an idea, using money from investors willing to back a risk. Japan has an extremely thin tradition of individuals making technological breakthroughs. Moreover, banks, which are still a prime source of investment funds in Japan, are less likely to risk money on an individual than a long-time corporate customer. There is no recognisable pool of venture capital available for use at home.

Ironically, as Japan's rules on overseas investment loosen, there is reason to believe that foreigners may find a ready source of funds in Japan available to invest abroad in new ventures.

This absence of risk capital, however, appears to be more than made up for by a sometimes astonishing willingness, since the oil crisis, of big Japanese companies to seek out new areas of high technology business.

Japanese corporate thinking began changing quite dramatically in the late 1960s, but it took the shock of the 1973 oil crisis to cause a major shift in direction.

Preoccupied

After several years of high growth in the late 1960s Japanese manufacturers were becoming preoccupied by a growing shortage of skilled workers, caused by a rapid expansion of production capacity, which many felt would jeopardise high rates of growth.

That era was characterised by a scramble by big companies to introduce more automatic equipment. In 1970 the Ministry of International Trade and Industry concluded in its first Vision of Japan's future —that a shift into knowledge-intensive industries —was inevitable for Japan's economy to remain on course.

But the immediate priority for big business, was spending to modernise and expand capacity. After a decline in 1971-72, capital spending by the manufacturing sector soared 37.2 per cent in 1973 and another 8.5 per cent to a record in 1974 when the oil crisis struck hard. Spending fell over the next three years, and it took until 1979 to recover the peak level.

It is worth noting that demand for automation led to the first boom in demand for computers, which set the domestic computer industry on the road to high growth.

Japanese companies did not simply stop spending during the hard times which followed the first oil crisis. Because of the financial structure of Japanese companies, big companies found, during the slowdown, that spare capital was accruing from depreciation of past investments. This allowed them considerable room to invest in technology and equipment to cope with new realities presented by the energy crisis.

The fact that they seized the opportunity can partly be explained by a general tendency on the part of Japanese companies to think about business in a medium or long term perspective. This is supported by banks, and other shareholders, who have a similar interest in long-term, rather than quick returns on investment.

Rationalisation was stressed in three areas: people, equipment and finance. Big companies trimmed payrolls, and began a drive to replace idle capacity equipment with energy efficient technology. Office automation began to boom in about 1975, creating new markets for office equipment and small business computers. Car and other assembly lines saw the arrival, on a large scale, of robots.

During this transition period, big companies, in many cases, benefited from the existence of a cushion of small and medium size companies, where much of the economic shock of the oil crisis was absorbed. It appears that there has been little significant change in the pattern of large companies depending heavily on sub-contractors. What has happened is a rather rapid filtering down from the big companies to the little companies of technology, in the form of demand for NC machine tools and other efficient, and flexible, equipment.

The depth in Japan of demand for electronic based equipment has in turn reinforced the willingness of the large companies to increase investment in semiconductor and other advanced industrial fields.

Outcome

One consequence of Japan's ability to move into high technology industries, and apply new technology to improve older industries, is a rapid build up of pressure among big companies to internationalize their operations. At one point in Japan's development, companies like Sony turned towards overseas markets in part because competition with the giants at home was difficult.

Major Japanese companies now find it "advisable" to invest in advanced industrial countries to hold on to the markets built up as a result of their success in exporting efficiently produced, high-technology goods from Japan.

Having established themselves in the forefront of this generation of technology, Japanese companies can probably continue to exploit their advantages. There is still considerable scope left for commercial expansion along the lines established by the first oil crisis.

Quantity with quality the ingredient of success

EDUCATION

CHARLES SMITH

JAPAN'S economic success is often attributed by outsiders to the fact that it is one of the few countries in the world that has managed to combine quality and quantity in its educating system.

About 30m people (including teachers) — or nearly 25 per cent of the population — are involved in education in one way or another and *de facto* universal education continues up to the age of 18. All this represents a striking change from the situation only 25 years ago when half of the nation's 15-to-18 age group was in school, to say nothing of the situation before the war when the number of Japanese university students was about 3 per cent of what it is today.

Japan's pre-war universities (and high schools) inevitably concentrated on producing an elite minority of future leaders whereas today's system of mass production higher education trains people to occupy middle as well as upper positions in society.

Despite this, standards seem to have remained high, or at least fairly high, compared with some nations whose education systems have undergone explosive growth over the past 30 to 40 years.

A second characteristic of Japan's education system, which frequently attracts envious glances from foreign businessmen and economists, is that it is science and engineering oriented — particularly the latter.

General science courses are compulsory throughout the essentially non-specialised curriculum of Japan's elementary, junior- and senior-high school system, although at senior high school level official guidelines allow for some variation of emphasis as between arts and sciences.

At university level, engineering studies are both popular and prestigious in contrast with the low place they occupy in, for example, the UK.

The number of students entering engineering courses in Japan's 1979 intake of new students was 79,200 or nearly 20 per cent of the total. The engineering faculties of Japanese universities usually attract around six times as many students as the pure science faculties (again contrast to the situation in Britain where science normally outranks engineering). In relation to the size of its population, Japan trains between three and four times as many engineers per year as the UK.

To other points about Japan's engineering-orientated education system that deserve attention are (1) that engineering graduates form almost half the number of entrants to masters degree courses (although, as will be seen later, the total number of graduate school students in Japan is still low compared with many other countries) and (2) that there is a special non-university course for "mid-level" technicians and engineers that substantially increases the flow of technical expertise into industry.

The so-called Koto Senmon Gakko, or specialised high schools which provide this type of training were started by the Government in 1961 in direct response to demand from Japanese industry.

Unlike Japanese universities which are mostly privately run, except for a short list of prestigious national institutions, the majority of Koto Senmon Gakko are state-operated. They have not proved as popular as seems to have been hoped but have still added about 10,000 graduates a year to the reservoir of trained technicians.

While foreign observers find it difficult not to spend all their time harping on the efficiency of Japan's system for mass producing graduate engineers, Japanese education experts have quite a few doubts about the system.

Doubts

One frequently heard comment is that the quality of education in Japan gradually deteriorates from the bottom upwards. Another is that universities are "hierarchical" or "introverted" in their organisational structure and thus not politically open to outside influences.

Finally, there seems to be little doubt that most universities (except for the handful of specially favoured state-run institutions) are weak on advanced research.

Only 3 per cent of Japanese university graduates continue their education to post graduate levels (ie to take masters or doctors degrees) compared with 19 per cent in France and 23 per cent in Britain. Those who do, are inclined to find (if they are scientists or engineers) that there is a marked lack of specialised equipment with which to work. Japan is notably short on accelerators for high energy physics, and on such items as DNa recovenanters and neutron scattering equipment.

Attempts by the Ministry of Education to promote the formation of joint research institutions which might acquire such equipment seem to have made little progress in the face of "separatism" by private universities.

The weakness of "home grown" advanced research is partly compensated for by the fact that no fewer than 8,800 Japanese academics in the fields of science and engineering went abroad for study, teaching or research in 1980. The reverse flow of foreign teachers to Japanese universities remains extremely modest, as does Japan's record in winning Nobel prizes and other international prizes for original scientific research.

The three post-war Japanese Nobel prize winners for physics were all educated in the pre-war or war-time education system—when numbers were far smaller but standards may well have been higher than they are today. At least one of them did the research which made his name while working in the technical laboratory of a company, not at a university.

Given the relative weakness of post-graduate education in Japan it is not surprising to find that big Japanese companies spend heavily on the education of their employees.

Hitachi, Japan's largest heavy electrical company, employs about 10,000 engineering and science graduates out of a total workforce of 70,000 and puts all of them through a two-year basic training programme, the first six months of which consists of on the job training as a blue collar worker.

Hitachi also offers 15-month courses for technical school graduates which the company claims provide the same amount of basic education as a four-year university course.

Fluctuation

Along with a variety of specialised technical courses for middle and senior management all of this costs about Y10bn per year, but the amount can fluctuate as a result of a system under which each factory is free to decide how many students it will send to various centrally operated technical schools and institutes.

Fujitsu, Japan's biggest computer manufacturer, spends less on education than Hitachi but nevertheless runs an elaborate series of training programmes that start six months *before* a new recruit joins the company and continues up to the mid-40s when the entire white-collar staff of the company undergoes a three-month "development programme."

The curriculum, though differing for managers and non-managers, includes lectures on music and on western literature (including Shakespeare). These are designed to make senior men in the company more able to converse with the westerners they may meet as Fujitsu becomes increasingly international. Hitachi teaches the art of haiku (traditional Japanese verse) composition to managers of a similar age.

Kawasaki Steel Corporation, Japan's third largest integrated steel manufacturer, recruits about 80 engineering or science graduates a year, of whom over 60 per cent have had master's or doctors degrees in the past few years.

Its new recruits undergo a one-year on the job training programme during which they act as assistant to general foremen in the company's two steel plants.

In his second year, a Kawasaki engineer is assigned to his permanent section where he continues to do the rounds of various shop floor activities in order to gain experience of how the plant works.

During this period he also continues theoretical studies, reading books and journals after work hours. A technical paper presented to a corporate technical conference concludes this period of training. After that, young Kawasaki engineers join research teams, each of which includes a variety of engineering or technical disciplines.

Despite the efforts that big Japanese companies are making to provide lifelong training for their graduate employees, Japanese education still seems to be stronger on basic training than it is on the development of talented individuals.

HOW ATTENDANCE HAS RISEN

% *	Senior High School	University
1955	51.5	10.1
1960	57.7	10.3
1965	70.7	17.0
1970	82.1	23.6
1975	91.9	37.8
1980	94.2	37.4

*% of relevant age group enrolled. Note: Education is compulsory up to graduation from Junior High School.

WHO STUDIES WHAT

Total number of students enrolled in universities and two-year colleges (May 1, 1980)	1,741,496
Percentage studying:	
Social Sciences (law, economics, etc.)	40.5
Engineering	19.4
Humanities	13.8
Education	7.9
Medicine and dentistry	4.1
Agriculture	3.4
Science	3.1
Other	7.8

Source: Ministry of Education

Efforts to upgrade the quality of university education have been under way since 1976 when a government council decided to freeze numbers and concentrate on raising standards.

Banks provide time to think

FINANCE

SABURO MATSUKAWA

THE CAPITAL spending behaviour of Japanese enterprises has been a major factor in helping them to gain a competitive edge over their Western counterparts. But the credit for this achievement does not lie only with the companies themselves. They have been helped by Japanese banks, which allowed them a longer time frame for calculating returns on new investments than is common in the West, where shareholders often seek quicker profits.

The relationship between capital spending and productivity has been stressed in many comparative studies of U.S. and Japanese industry. The Japan-U.S. Wisemen's Group, a panel of four economists from each nation, who studied bilateral economic and trade problems last year, said in its report published in January: "The U.S. Government should sponsor a comprehensive research programme on the measures Japan and other foreign countries have taken in the public and private sectors to increase productivity."

"U.S. corporate management," it said, "should make long-term productivity improvements a principal objective, building productivity consideration into corporate objectives, management attitudes, and management compensation programmes."

In the course of discussion which preceded the report's compilation it was pointed out that U.S. business executives have to face questions posed by shareholders of their company whenever their half-yearly or quarterly business reports show poor results. They have to improve the company's business as quickly as possible. The time frame for returns on their investment is thus necessarily short. By contrast, shareholders' meetings of Japanese companies are traditionally short and quiet, because many large shareholders are business friends of the company, while smaller shareholders are scattered, and because Japanese companies have depended more heavily on bank loans.

Potential

The trend is reflected in the fact that the ratio on net income after tax to gross sales in fiscal 1979 was 2.4 per cent for 656 manufacturing foreign companies operating in Japan, far larger than 1.6 per cent for all Japanese corporations. On the other hand, 400 out of 3,500 foreign companies established in Japan since 1950 had withdrawn by fiscal 1979 due mainly to insufficient profit.

Japanese investors do not seek large income gains but aim at growth potentials of the companies they invest in. The average yield of listed Japanese stocks is less than 2 per cent, compared with about 6 per cent in the U.S. and about 4 per cent in France and West Germany, according to figures compiled by Japan's Economic Planning Agency. The low yield of Japanese stocks was covered by stock price rises, so the total of income and capital gains was only slightly lower, at 10 per cent, than 13 per cent in the U.S. in fiscal 1979.

Most Japanese business executives are directors who have been promoted from among lifelong employees of the company they are managing or transferred from the management of an affiliated company in the same group. In addition, there are some former senior officials of the Japanese Government, who usually follow the policy of other directors. Senior employees of a Japanese company thus tend to give more serious thought to its long-term future than their counterparts in Western companies.

During the protracted recession which followed the oil crisis of 1973 many Japanese labour unions, usually organised on a company basis, co-operated in the rationalisation of the company's operations to reduce costs. Workers in Japanese steel plant formed many small group to advance proposals for saving energy as well as labour and increasing efficiency.

In these circumstances small wonder that business executives can use a longer time frame for calculating returns on new investment than Western managers.

Good returns

The original reason for the active capital outlays for plant and equipment by Japanese companies was that Japan's economic growth was faster than in other advanced nations, rewarding large investment of borrowed money for long-term purposes with good returns. Japanese enterprises, which were chronically short of capital, had to depend heavily on bank loans because the capital market was relatively under-developed. Banks were able to get many deposits from the public, taking advantage of the traditionally high saving rate in Japan. They also looked frequently to the Bank of Japan for additional credit.

Reliance on bank financing rather than equity finance was encouraged by a system which allowed enterprises to treat interest payments on bank loans as tax-free costs, while dividends were subject to corporation tax and income tax. Banks had their own reasons for increasing the volume of their lendings. They were obliged to go for quantity rather than quality, because their lending rates were held by the monetary authorities at relatively low levels to promote economic growth as well as exports.

Under the supervision of monetary authorities, Japanese banks carry out the task of helping industries expand. They sometimes supply loans from the long-range point of view, which may not be entirely sound on a short-term basis.

They can sometimes look to the Bank of Japan for assistance to bale out an industrial or business company. This also allows Japanese corporations to use a longer time frame.

The gap between Japanese and U.S. corporate financing methods could change only slowly. The panel of Wise men recommended that "the President and Congress should develop specific long-term programmes to improve savings and and investment rates, such as investment tax credits, the reduction of personal and corporate and capital gains taxes in a non-inflationary manner, and the shortening of depreciation schedules."

U.S. management and labour should consult closely on productivity trends and problems so as to enhance productivity and increase bilateral understanding of shared problems.

Japanese corporations have been reducing their dependence on bank loans, as their own reserves and depreciation funds increase, while the Japanese capital market has been developing remarkably in recent years. The Banking Law and the Commercial Code have been amended to require more disclosure of companies' positions and to make shareholders' meetings more lively. But Japanese corporations are resuming active capital spending for further modernisation, although their present plant and equipment are already among the most modern in the world.

Monetary officials said it was very sound behaviour that Japanese industries invested their increased income, generated by relatively low wage increases in 1980 and 1981 into additional capital spending to improve their international competitiveness.

JAPAN VI

A shift into areas of new and high technologies

EXPORT TRADE

DAVID DODWELL

AS THE protectionist lobbies in Europe fight their battles against Japanese cars, televisions and steel, they seem to be one step behind Japan's fast developing export industry.

Already the Japanese are beginning to shift efforts away from traditional export areas into new and high technologies involving semi-conductors, integrated circuits and computerised products.

Trade analysts in Japan predict that by the time the West fully appreciates the threat from such products, it will be too late to protest.

The implication is that Japanese exporters of electronic products are so far in advance of our own manufacturers that we will have no comparable products to protect, and no protectionist lobbies to campaign in their defence. The threat will not be to existing industries, but to industries that might have been.

While electronic products remained at the exotic periphery of daily life, the threat may not have seemed great. But it is clear that the electronic revolution will penetrate every area of our lives. It is being applied not only in smaller and smaller computers, but in office equipment, telecommunication, industrial machinery like machine tools, cars and tractors, washing machines and irons and other household appliances, and in watches, calculators and video equipment.

One senior executive at Nippon Electric (NEC), one of Japan's leading electronic manufacturers, is matter-of-fact in describing the West's dilemma: "Some governments are already horrified at not having the technology in their country. They are spending vast sums of money trying to catch up. But I'm afraid its too late. They should have started 10 years ago. In future they may be able to acquire the ability to manufacture these products using licences, but they will never have the technology to produce on their own."

Prospects

The implications of such a prediction become clear when export prospects are assessed: "The electronics industry will overtake the steel industry and will approach the automobile industry by the end of the decade." Japan's car exports were worth $23bn last year and are still growing at a hectic 37 per cent a year

Such products account for a tiny share of Japan's total exports. Out of total exports in fiscal 1980—ending on March 31 1981—worth $130bn, cars account for 18 per cent. Iron, steel and other metal products account for a further 16.4 per cent.

Other conventional exports, like chemicals (5 per cent), textiles (4.7 per cent) and ships (3.9 per cent) follow in order of importance. But all these sectors, with the exception of cars, and ships—which recovered from weak demand in 1979—are in decline in terms of their share of total exports.

By contrast, tape recorders and video equipment leapt by 57 per cent in 1980, and account for 2.8 per cent of total exports. Exports of integrated circuits and related products rose 37 per cent, but still account for just 1.8 per cent of total sales.

The importance of electronic technologies in Japan's exports is disguised in part because they are often an integral but unspecified part of other export products, classified as general machinery, electrical machinery or transport equipment.

It is important to note that these sectors together account for 63 per cent of Japan's exports and grew by 29 per cent in 1980. Even more significant they accounted for more than 68 per cent of the increase in value of exports between 1979 and 1980.

Japanese manufacturers of electronic products claim that exports have been supressed because of the current insatiable domestic demand.

But the trend inside Japan towards the manufacture and export of increasingly sophisticated products is inexorable. Spending on research and development is immense. NEC has spent over $1bn in research so far, and has no plans to cut back.

This has generated rapid growth in Japanese sales of technological knowhow. For the first time since the Second World War, Japan in 1980 jumped into surplus on balance of trade in technological knowhow. According to a recent survey of leading Japanese companies, exports exceeded imports by Y17.1bn (£386m) compared with a deficit of Y16.4bn in 1975.

The overall balance in trade on know-how is still deeply in "deficit" mainly because of heavy investment after the war in royalties and licences to establish the most modern U.S. and European plants in Japan. Official figures for 1979-80 show import costs of Y276bn against exports of Y75bn.

Japanese manufacturers and government trade officials fully expect pressure to curb their high technology exports in due course, just as they are currently under pressure over cars, televisions and steel.

For various reasons they will continue to resist the pressure. Japan's total dependence on imported mineral fuels, and the dearth of raw materials for industry impose an inelastic demand for imports; these two categories alone account for 67 per cent of all imports.

More important, mineral fuels — mostly oil products — accounted for 83 per cent of the increase in the 1980 import bill, maintaining relentless pressure to expand exports.

Strong export growth in fiscal 1980 (almost 29 per cent) helped keep the visible trade account in surplus by $2.23bn. A targetted 14 per cent growth in the current year is expected to widen the surplus to $8bn, with imports expected to grow by 12 per cent.

Surplus

But the current account balance is deep in deficit, around $10.7bn, mainly because of invisible payments of $11.3bn and transfer payment of $1.5bn. Even in the current fiscal year, with a comfortable surplus on visible trade, invisibles are expected to rise above $14bn, generating a current account deficit predicted at $6bn.

This is a point Japanese trade officials are keen to make in the face of critics of their export success in the West. Even in Europe, where visible trade is clearly in Japan's favour, trade swings into deficit when Japan's invisible payments are taken into account.

In addition, Japan's heavy dependence on oil and raw material imports puts it deeply in debt to countries supplying these products. Few of these have the markets to absorb Japan's exports so a structural imbalance in Japan's trade, with large visible trade surpluses elsewhere, is inevitable.

Japan's trade officials and leading businessmen are deeply sensitive to mounting Western antagonism over its trade success. While consistently condemning protectionism, they accept the need for informal restraint, simply because they see that damage inflicted on domestic industry by Japanese exports can aggravate unemployment and deepen recession, weakening the market to everyone's disadvantage.

But they argue that, given the size of the Japanese economy and Japan's share of world trade, its share of Europe's total imports is not particularly large. The solution is therefore not to curb Japanese exports to Europe, but to boost Europe's exports to Japan.

For this they have taken the unusual step of sending out import promotion missions to Europe, and of establishing an agency inside the Ministry of Trade and Industry (Miti) to advise prospective exporters to Japan.

While agreeing to examine non-tariff curbs on imports, they argue that these are no more of an obstacle than anywhere else. They claim that Japan's export success is in large part due to marketing efforts. In brief, they say "We try harder." And they have batteries of statistics to back their case.

Further aim

As an alternative to continued export growth, they are actively encouraging overseas investment and joint ventures in third markets. The Honda collaboration with BL and the NEC subsidiaries in Northern Ireland and Scotland are examples.

A further aim is to accelerate wherever possible the economic growth of developing countries in the hope of generating new consumer markets for exports from Japan and other industrialised economies.

This is the basis for boosting Japanese bilateral and multilateral aid, and for agreeing to technology transfer deals with developing countries.

However, it is no accident that 70 per cent of Japan's bilateral aid goes to Asia, with almost half of this to the five member states of the Association of South East Asian Nations (Thailand, Malaysia, Singapore, Indonesia and the Philippines). Naturally enough, Japan's first priority is to boost growth in countries nearby, since these are countries where Japan would benefit most by greater trading activity.

Keen as Japan claims to be to accelerate growth in developing countries, its own electronics revolution has seriously undermined one major advantage—it has halted the trend based on cheap labour from the third world.

The revolution brought about by micro-chip technology means that Japan has—at least for the time being—made it possible for manufacturers operating in high labour cost countries to produce their goods more cheaply, and more reliably, than they could in Sri Lanka, Pakistan, Malaysia or any other cheap labour country.

The implications of this are profound, and have not yet been even cursorily assessed. If Japan is genuine in its commitment to boost global trade through wealth creation in developing countries, then it will have to take this change into account.

On several occasions, and even during Prime Minister Zenko Suzuki's recent Europe tour, Japan has been attacked as an economic predator. Its electronic revolution may foster new attacks of this kind not just among the Western industrialised competitors, but among the developing countries it is keen to help.

JAPAN'S MAIN EXPORTS

(Figures in U.S.$bn for calendar years 1979 and 1980)

	1979	1980	Share of 1980 total exports %
Foodstuffs	1.2	1.4	1.2
Textiles	4.9	6.3	4.8
Synthetics	1.9	2.3	1.7
Chemical products	6.1	6.8	5.2
Non-metal minerals	1.5	1.9	1.4
Metallic products	18.4	21.3	16.4
General machinery	14.9	18.0	13.9
Electrical machinery	17.4	22.8	17.5
Transport equipment	25.7	34.4	26.5
Of which cars	17.0	23.3	17.9
Precision instruments	5.1	6.2	4.8
Optical goods	3.9	4.5	3.5
Watches	1.3	1.7	1.3
Miscellaneous items	7.7	10.5	8.1
Total exports	103.0	129.8	

JAPAN'S MAIN IMPORTS

(Figures in U.S.$bn for calendar years 1979 and 1980)

	1979	1980	Change %	Share of 1980 total imports %
Foodstuffs	14.4	14.7	1.7	10.4
Raw materials	22.2	23.8	7.0	10.9
Mineral fuels	45.3	70.0	54.6	49.8
Of which P.O.L.	33.5	52.8	57.6	37.5
Chemicals	5.2	6.2	19.8	4.4
Machinery	8.3	9.8	18.0	7.0
Other manufactured items	15.3	16.1	5.3	11.4
Total imports	110.7	140.5	27.0	

Important missing link in postwar projects

DEFENCE

RICHARD HANSON

DEFENCE IS probably the most important missing link in Japan's postwar technological development. Its policies of maintaining a tiny defence establishment, compared with the U.S. and most of Europe—with minimal spending on R and D—is thought by many to have seriously impaired Japan's ability to compete with the West on the "cutting edge" of new technology.

The U.S. strategy for acquiring superior defence technology begins by pouring billions of dollars into research and development. With about 10 per cent of the defence budget going to R and D, U.S. industry can comfortably afford to carry on work needed to design and produce ultra sophisticated electronic warfare systems, and the advanced computers and weapons which go inside.

A strikingly different situation is found in Japan where less than 1 per cent of its GNP is spent on defence compared with more than 5 per cent in the U.S. Within the defence budget R and D accounts for slightly over 1 per cent of expenditure. Last year this amounted to less than $150m. Both France and the UK devote more than 10 per cent of their defence budgets to research.

Japan's low expenditure on defence can be traced to two major factors. The first can be described as a residue of anti-military sentiment left over from the war. Japan's "no war" constitution has been interpreted by successive governments as prohibiting the build up of expensive weapons for offensive purposes. Japan does not want to heavily involve itself in weapons systems which are not defence orientated.

The second factor is that, for the time being, Japan faces serious budget problems. The Government has adopted a strict policy of austere spending to reduce the amount of debt it must issue to cover national budget shortfalls. Defence has been exempted from general budget ceilings, but only enough to allow for a gradual increase in spending.

Japan's position in defence production—most of it under licence—would appear much grimmer if it weren't for the fact that the companies themselves have, for civilian purposes, made remarkable gains in production expertise and technology in recent years. This is especially true in the areas of micro-electronics and communications.

The Defence Agencies buy Japanese whenever possible or when impossible, have a Japanese company enter a licence or other procurement agreement with the outside world.

While it is possible to point out any number of items Japan is not able to produce for defence, such as long-range missiles and certain parts of F-15 jet fighters to be built under licence, there is fairly sound evidence that some technology developed for civilian use can fit defence needs. a short-range surface to air missile system, "Tam-Sam," to the Defence Agency, developed on its own "silicon on sapphire" microchip which would allow it to build a computer that could resist the neutron bombardment of an atomic blast, an important consideration for a defence computer.

Another example can be found in NEC's work on an experimental communications sattelite which operates at the highest frequencies ever achieved.

These bits of technology are at best only part of a highly complex defence jigsaw, but could help provide the means for Japan to put together a highly sophisticated early warning system. [The Agency is now in the market for a new system.]

Foreign Defence experts remain douttful that Japan has the capacity to put entire systems together on its own. One basic problem seems to be the organisation of the self-defence forces themselves, which lack, for the time being, a central command system.

There appear to be at least three main motivations for Japanese companies to get involved in defence production, despite the difficulties. The first, and one cited often by those in the industry, boils down to patriotism.

This seems to have figured strongly when the Mitsubishi group and other Japanese heavy machinery makers decided to

CONTINUED ON NEXT PAGE

Employees' allegiance leads to collective urge for success

COMPETITIVE FORCES

CHARLES SMITH

WHEN foreign businessmen or officials complain about the aggressive behaviour of Japanese industry in their domestic market, or about the alleged difficulties of penetrating the Japanese market, their Japanese counterparts are apt to reply that "it is all due to different attitudes towards competition."

What they are claiming, in effect, is that Japan is not only a more competitive society today than most mature Western nations but also one in which businessmen place far greater stress on market share—and proportionately less on profits—than their Western counterparts.

The notion that Japan is an ultra-competitive society may sound odd to those who have been reared on the idea that almost everything that happens in the Japanese business world is the result of some decision made by a bureaucrat at the Ministry of International Trade and Industry. The truth seems to be that Japan is a country in which competition and co-operation have both been developed to fairly advanced stages. Exactly how this has happened is one of the mysteries behind the Japanese "way of doing things," but there are clues to the success of the system.

The simple answer to the question why Japanese companies compete so aggressively—particularly for market share rather than profits—is that it is the way Japanese psychology seems to work. The emphasis on group identity, rather than individualism, which characterises Japanese society lends itself naturally to the growth of strong feelings of allegiance by employees to the companies they work for. This in turn translates into a collective urge for success by all the company's employees—not just the small group of managers at the top who stand to gain credit if profits are good and the share price appreciates.

Patterns

Company allegiance militates against mergers and the rationalisation which has shrunk the number of companies in many Western industries. But this does not mean that Japan's industrial structure is atomised. As a substitute for horizontol mergers between similar companies, as well as for vertical integration, a number of patterns of co-operation have grown up in Japanese industry some of which, ironically, have had the effect of further enhancing competition.

Two familiar "co-operative" patterns are the so-called families of companies that have appeared in post war Japan (such as Mitsubishi, Mitsui) as successors to the pre-war Zaibatsu groups — which were tightly controlled business cliques dominated by family controlled holding companies—and the clusters of small companies supplying components that often surround Japan's larger manufacturers.

The post-war company families can be described as loose groups of enterprises from a wide range of different industries, held together by informal trading relationships and by common services such as inter-group exchanges of information. They have a tendency to rely heavily—though not exclusively—on a single group bank. They have enhanced the competitive climate in post-war Japan because most major groups have felt obliged to stake their claims in nearly all major industries—and because a group quite frequently establishes two companies rather than one in industries which are seen as having especially promising growth potentials.

JAPAN'S MAIN TRADING PARTNERS

(1980, fiscal; figures in U.S.$bn)

Japan's export markets		Main exporters to Japan	
United States	31.4	United States	24.4
West Germany	5.8	Saudi Arabia	19.5
Korea	5.4	Indonesia	13.2
Taiwan	5.1	U.A.E.	8.2
China	5.1	Australia	7.0
Saudi Arabia	4.9	Canada	4.7
Hong Kong	4.8	Iraq	4.3
Singapore	3.9	China	4.3
United Kingdom	3.8	Iran	4.1
Indonesia	3.5	Malaysia	3.5
Total exports:	126.7	Total imports:	124.6

The establishment of two petrochemical companies in the Mitsubishi group — Mitsubishi Kasei and Mitsubishi Yuka — which compete with one another in almost the full range of petrochemical products made sense as a way of boosting Mitsubishi's stake in the industry faster than could have been done with only one company. Competing twins within company families sometimes have to be forcibly merged during recessions at the behest of family leaders but the feeling is that even if this happens the end result is a bigger stake than could have been achieved with only one company.

The clusters of specialised components suppliers that surround major Japanese manufacturers such as Toyota and Nissan provide part of the answer to the puzzle why the added value ratios of big Japanese motor manufacturers are far lower than those of American manufacturers — Toyota's ratio is around 30 per cent compared with 50 per cent for GM. They also mean that competitive conditions exist in sectors of Japanese industry which, in the U.S., have long since become production divisions of giant, vertically integrated companies.

Japan's big motor manufacturers began their post-war development by selecting groups of suppliers for key components which they assisted with finance, management and technology. But the companies which received such assistance have, in many cases, outgrown their original technological dependence on their principals, reaching the point where they can—and do—compete to sell their products to other major manufacturers. Coupled with this inter-group competition is the frequent existence of two or more suppliers of the same specialised component within the same big company "cluster" —usually as a result of conscious planning by the manufacturing principal who may not have wished to be dependent on a single supplier.

Competition between companies is not the only kind of competition which seems to have lent dynamism to Japan's post war economic performance. Scarcely less important is competition within companies—but between groups rather than individuals. The urge to be the best production team in a factory or the most efficient branch in a major, nationwide, bank goes far to explain why quality circles have succeeded in Japan.

Group competition within companies, however, appears to bring problems as well as advantages. One is the difficulty acknowledged by some major electrical manufacturers of getting different departments to share information or research results with each other.

Despite the fact that the competitive urge seems to be fairly deeply rooted in the Japanese business world, different eras can be identified in the post-war development of the economy in each of which competition has functioned in a different way.

The first fifteen years of Japan's post-war resurgence are frequently seen as a period in which companies sought growth for growth's sake—or rather for the sake of acquiring a stronger claim to the allocation of the foreign exchange and materials which were subject to control by the Ministry of International Trade and Industry.

From the mid 1960s onwards a variety of indicators point to a slight slackening of Japan's competitive urge. Concentration ratios. (the market shares of the largest companies) in a number of major industries appear to have climbed and there was a sharp increase in the number of cartel agreements, both legal and illegal, despite efforts by the Fair Trade Commission to police this area of the economy. Some Japanese economists feel that Japanese industry might have drifted steadily in the direction of oligopoly if the economy had not been subjected to a series of shocks from the early 1970s onwards, but that mercifully or otherwise, these incidents had the effect of putting the economy back on its mettle.

Strategy

The 1973 oil crisis in particular is seen as having forced Japan's rather stagnant basic materials industries to restructure and cut costs, since the industries concerned could not have stood up to international competition if they had pursued a "live and let live" strategy. The oil shock also enhanced the need for all Japanese industries to stress the development of low-energy consuming and added value goods—some of which have since turned out to be the seeds of new industries.

These new industries typically enhance competition, for the simple reason that established companies move into them, thus being forced to compete more vigorously than if they had stuck to their original products. An example of inter-industry competition in a new product that dates from the early 1970s is the struggle between watch manufacturers and consumer electronics companies to dominate the new field of electronic watch making. More recently the expanding field of mechatronics has become a battle ground between companies that were originally specialists in either mechanical engineering or electronics.

The stimulus administered to Japan's creative and competitive urges by the first and second oil crisis will presumably die down in due course — although no-one in Japan is ruling out the possibility of a third or fourth energy crisis.

This means that the balance could to some extent tilt back towards the co-operation or even cartelisation that seemed to be emerging in Japan during the late 1960s.

From kimono to battle-dress: sergeants on parade in Japan's Women's Army

Postwar defence developments

CONTINUED FROM PREVIOUS PAGE

resume defence production on a limited scale in the early 1950s. Their efforts went unrewarded for many years by Japan's Defence Agency, which is notoriously tight in its procurement policies. The Agency allows a nominal 5 per cent profit on what it determines to be the production cost of equipment ordered from Japanese companies. Its policies on research and development are no less rigid. Private industry foots the bill with only partial funding for basic research coming from the Government budget.

NEC says its in-house R&D budget would appear much larger if spending on Defence Agency R&D contracts were included.

A second reason is that the companies involved can afford it. The list reads like a Who's Who of Japanese industry.

Nearly half of all defence contracts in 1979 went to five companies: Mitsubishi Heavy Industries (MHI), Mitsubishi Electric (ME)—both members of the Mitsubishi group; Kawasaki Heavy Industries; Ishikawajima - Harima Heavy Industries (IHI) and Toshiba. The top 20 companies include the leaders in communications and computers (NEC and Fujitsu). Other well-known names are attempting to strengthen defence divisions. Hitachi, the largest diversified maker of electrical machinery, last year created a defence business promotion division to consolidate its defence work.

But none of the big companies are dependent on defence as a main line of business. At MHI, the largest defence accounts for about 10 per cent of total sales. For the 100 companies which form the Japan Ordnance Association, the average is 1.8 per cent.

The third motivation is that companies are taking an extremely long view—even by Japanese standards—of the prospects for defence business. Defence, even if it continues at the current spending ceiling of 1 per cent or less of GNP, will be among the faster growing industries in Japan in years to come.

Japanese companies would be less inclined to take the risk of investing in defence technology if they were not reasonably sure foreign competition would be kept at bay. To the dismay of foreign arms exporters, the Defence Agency's policy of favouring Japanese companies seems to have allayed these fears.

Strict controls

Also figuring in the long-term view is the possibility, though not yet a likelihood, that the Government will partially ease strict controls on arms and defence technology exports. A hypothetical first step could be a decision to allow joint weapons development with the U.S. or Europe, combining Japan's rapidly advancing technology and skills with those in the West.

Japan is ... operate with others in developing civil use technology for jet engines—now underway with Rolls-Royce — and commercial aircraft. Discussions are taking place on the latter for a Europe-U.S.-Japan deal, involving Fokker, McDonnell Douglas and a Japanese group. The U.S. is believed to be seeking Japanese co-operation on defence production.

The technology gap between Japan and the West could close rapidly if Japan decided to boost its spending on defence drastically, something which for the moment is highly unlikely, or if it opened its industries to freer competition and co-operation with the West in defence technology.

Whether either of these options will appear more attractive to Japan in future is a matter of speculation. An even more difficult question is whether the rest of the world would welcome a Japan which finally found the "missing ..."

MITI subtly stirs the revolution

GOVERNMENT

RICHARD HANSON

THE Ministry of International Trade and Industry — better known by its initials—retains its role as the prime mover and shaker of industry in Japan.

The way it accomplishes things has changed, though a good example of how MITI works these days was seen in a little noticed report published in June outlining a Vision for the "informationisation" of Japan and its industries in the '80s, and what government ought to be doing about it.

The report submitted by the Information Industry Committee of the Industrial Structure Council, an advisory group to MITI, famous for turning out earlier Visions, amounts to a blueprint for Japan in the information age.

The basic premise of the Information Vision is that the process of computerisation in industry and society will continue to accelerate, altering the way goods are produced and the way people live. In this scenario information as "infrastructure" is as essential to future growth as capital and technology has been in the past.

In the blasé style of an official report, the Committee declares that "informationisation" is the most important phenomenon since the industrial revolution and that information industries—computers, data processing and others—will lead the economy this decade.

MITI takes its Vision one step further to make it understandable to ordinary people whose lifestyles, it says, are in for dramatic change. Officials have even prepared two novelettes depicting what the daily routine of the "S— Family" in Tokyo may be like on May 21, 1990, and a second describing a 1990s working week for "Mr T—" a 36-year-old planning officer for a company making products for space exploration.

The report is accompanied by illustrations leading the reader through a maze of new systems for computerising offices, homes and communities of the future, including a smiling portrayal of the fifth generation computer, a project about which MITI plans to hold an international conference later this year. The UK has already put out feelers to MITI on joint development of such a computer.

MITI's view of the future is couched in generalities, which is not especially startling given the nature of revolutions. The recommendations, when specific, tend to be on resolving bureaucratic roadblocks to progress, such as limits no the use of communications lines—under the thumb of rival Posts and Telecommunications Ministry.

The aim, however, is to set the stage for changes in perceptions about the future.

Stingy

MITI's role in stirring up the information revolution has been like that of an armchair general, who relies on each unit in the field correctly to interpret the sometimes vague marching orders in a grand strategy. MITI itself when not encouraging the troops, must contend with the backroom job of convincing the stingy Ministry of Finance to back its schemes. MITI's budget is actually one of the smallest in government.

This is in sharp contrast to the power the Ministry wielded in the heady days of postwar recovery, when it exercised near dictatorial control over most major industries. The days of notorious MITI are gone. Only one nostalgic wing of the old dull, grey building from which it once ruled remains, ironically housing two future orientated agencies, responsible for technology and energy.

MITI now relies on a more subtle approach, which involves setting priorities and pointing out new directions (though the whip is no doubt stored in a readily available place).

MITI'S visions have been fairly consistent, since the first one appeared in 1970, particularly over the importance of knowledge intensive industries for future growth. Its vision for the 1980s further elaborated on this theme, and prompted the latest in-depth study. MITI's consistently forward-looking approach to development, and its ability to influence the industries under its wing, has produced a powerful impetus for positive change in Japan.

MITI's guidance is accepted by most as an article of faith simply because the record shows it to have been mostly sound. There have been mistakes—a costly attempt to launch a civil aircraft industry in the 1960s, for example—but these seem less important than the successes. The latter, as far as this survey is concerned, are best symbolised by Japan's hot house leap into the computer industry in the 1950s and 1960s, and into semiconductor technology, in the 1970s.

MITI's tactics include an unabashed use of protection from outside competition while industries are in the formative stage, and providing seed money to inspire private industry to pursue, and sometimes cooperate on new areas of technology.

The computer industry was first identified as early as the mid-1950s as a critical national industry, though Japan's use of computers lagged behind the West until the 1970s.

MITI helped save the home industry from an onslaught by IBM, whose market share is now being steadily chipped away by domestic makers, by requiring IBM to licence its technology locally in return for permission to manufacture in Japan. In 1961 MITI established a subsidised computer rental organisation—the Japan Electronic Computer Company. In 1970 the first of a famous series of development programmes was organised, running from 1971 to 1975, to develop computer hardware to match IBM, followed by projects on software and related machinery development, and the creation of a high-powered memory device, the VLSI. Foreign investment in semi-conductors was not fully liberalised until 1975, though Texas Instruments set up a deal in the 1960s involving technology sharing with Sony Corporation.

Robots in action at the car body assembly shop of the Tochigi plant

As a chief tactician at MITI for the past three decades, Mr Naohiro Amaya, who retired last month as Vice Minister for International Affairs to become an adviser, knows the system well.

In a recent interview, he stressed that a crucial element in his Ministry's actions has been timing of shifts from protectionism to liberalisation. Keeping controls on an industry, like computers, for too long can inhibit growth just as surely as early liberalisation can stop it dead, he says.

Subsidies

The other way in which the Government's work is felt is at the more mundane level of research and development. The subsidies which MITI and other ministries dole out for technology development to private industry are important, but mostly because of the chain reaction effect. It is rare for a government sponsored project to enjoy subsidies beyond about half the development costs. Most funds come from the private sector.

On the other hand, the Government carries on what it considers to be essential R and D in areas which the private sector is incapable of approaching on its own.

For this purpose it created the agency of Industrial Science and Technology (AIST) in 1948 under the wing of MITI. The AIST represents the Government's main thrust in research essential to information age technology for industry. It accounts for about 10 per cent of public R and D expenditures. This includes work on the next generation of computer technology. The role of AIST, whose Director General is profiled in this survey, is discussed in more detail in the article on technology.

MITI officials are partially aware of the big brother implications for people's privacy and personal freedoms which are bound to arise as the information revolution continues. The Vision mentions the need to consider such problems as computer security—including the problem of when someone pulls the plug on the information society—and privacy.

Competition forces automation ahead

LABOUR

JOHN HARTLEY

A GROUP of European engineers and managers were amazed when they were shown two robots working in a press shop in Japan a few years ago. They were amazed not at the technology but by the fact that despite the unfavourable economics of the installation, the robots were being used at all.

That reaction marks an important difference between Europeans and Japanese when it comes to automation and robots, and it goes a long way to explaining why there are so many more robots in Japan than Europe. Europeans assess each application of automation independently, and base their decision on the costs ruling at that time. Thus the main reason for the lack of robots in the UK is that it is generally cheaper to use a man.

By contrast, the Japanese appreciate that increased automation and the greater use of robots are inevitable trends in manufacture. So they consider it essential to install new plant continually to remain competitive. Because the Japanese market is so competitive, increased automation seems essential.

Undismayed

In the application that amazed those Europeans, one robot was being used to unload panels from a press and deposit them on a conveyor: the second robot picked the panel up and placed it in the next press. Previously, a simple mechanical hand had been used to remove the panel from the press, while two men operated the next press.

Those two robots cost £72,000, and replaced four men—two per shift. Therefore, it took three years for the cost of the robots to be recouped, and that seemed too long to the Europeans—they could not see their boards of directors accepting that long payback period. In any case the robots worked more slowly than the men, and the U.S. robot manufacturer had already shown that one robot could be used to do the job that the two Japanese robots were doing.

But the Japanese were undismayed, because they knew that the installation of new plant is only the beginning of a perpetual development programme, and that for the company as a whole, the investment in the inevitable future was not high. The reason development continues is those famous quality control circles. Not only the manager and engineer, but also the foreman and operators are expected to make suggestions to improve the operation.

A couple of years ago Nippon Denso, the large manufacturer of automotive electrical equipment, built some robots to extract aluminium castings from high pressure die casting machines. When the robots were first installed they took 45 seconds to remove the casting and place it in a trimming press. After development of the robot mechanism over a five month period, the time of the operation was cut to 30 seconds. Nine months later it was down to 20 seconds, and several of the ideas leading to that 33 per cent reduction came from the shopfloor.

In neither case was the productivity level of the initial installation dramatic. But the Japanese have exploited their talent for gradual development to make the use of the robots more than worthwhile. It is true that the same sort of gradual improvement cannot be made in the spot welding of car bodies, currently the biggest application for robots in Japan. In that case there is limited scope for refinement once the line is operating.

However, because of this attitude of continual development, the engineers are looking ahead, and are demanding new types of robots. Nissan found the capabilities of the Unimate 2000 robot were far greater than those needed for spot welding car bodies. So, they asked Toshiba to produce a simple robot for welding along a straight line, and then went to Kawasaki Heavy Industries, Unimation's licensee in Japan, with a layout for a simpler, smaller version of the Unimate 2000 that could be suspended from an overhead rail. The result was the Unimate 6060 arms, which are cheaper than the 2000, and which can be placed very close together. Nissan uses a group of six, all working simultaneously, to weld side assemblies for Datsun Cherry cars. The total cost was about 70 per cent of that for a similar line with Unimate 2000 robts.

Spot welding of car bodies, extraction of mouldings from injection moulding machines, and of castings from diecasting machines are the main uses of robots in Japan at present, and together with mechanical handling and a few other applications have built up a population of around 6,500 robots. That sounds a lot compared with the 300 in the UK and the 3,000 in the U.S. but it is not so many for a working population of 55m people. Indeed, on the basis of robots per worker, Sweden is the most robotised country, with about 225 robots per million workers, against 118 per million in Japan.

Nevertheless 6,500 robots is a lot, and by the end of this year, that population is likely to reach 9,000, with the annual rate of increase continuing for the decade. The two main reasons that have led to the large robot population are simple economics and the employment situation in Japan —not forgetting the underlying desire to be modern and competitive.

Labour costs in Japan are quite high, but the simple statement that average wages in the motor industry are, about £5 an hour tells only part of the story. Wages increase with age, and Japan's working population is ageing rapidly. This means the actual shopfloor wages are increasing more rapidly than the statistics show.

Welcomed

In the big companies at least, the famous lifetime employment system is the norm, which means workers have nothing to fear from automation. Even if the factories become completely unmanned, the shopfloor workers will still be employed. So, far from resisting automation, they welcome it. After all, if the choice is between making 20 spotwelds a minute with a heavy welding gun, or watching robots do the welding while you check quality, few workers would chose to do the welding.

To some extent these incentives to install robots are intangible, and management still needs to be able to justify the cost. Japanese managers are generally prepared to take a long-term view, and set the payback period at about 30 months, whereas in Europe the norm is closer to 18 months. In addition, they almost always seem prepared to install a few new machines on an experimental basis even if the economic advantages are dubious.

Generally, though, robots are already an economic proposition in Japan. The Japan Robot Leasing Co, set up by the Ministry of International Trade and Industry, but self-financing can lease a £30,000 robot to a user over a six year period at an annual rate of about £6,500. If the plant is working two shifts, that robot is likely to be able to replace two men, so the economic advantages are clear.

Now that this stage has been reached, Japan is undergoing a major change in the way it uses robots. First, the range of applications is widening, with machine tools and arc welding emerging as major new applications areas. Secondly, many more companies are starting to make robots to suit these applications. In the past few months seven new robots all aimed at the arc welding business have appeared. They included two well-known newcomers — Matsushita and Mitsubishi Electric.

A more forceful attitude in the international arena

FOREIGN POLICY

DAVID DODWELL

JAPAN IS in the process of discarding the cult of low-profile diplomacy that has shaped foreign policy for the past 30 years. The new role has not been coherently formulated, but there is no doubt it will be more forceful than at any time since the Second World War.

Prime Minister Zenko Suzuki admitted in a major foreign policy speech during his recent European tour that Japan "has been a largely passive beneficiary of the peace and stability of the international community during the post-war period."

But he said change is in the wind: "We must take the initiative in fulfilling our international responsibilities befitting our national capability. Japan must alter its diplomatic posture from that of passive beneficiary to that of active contributor."

For three decades Japanese foreign policy has been moulded by the dictum: "Smile, sleep and stay silent." From the safe haven of the U.S. defence umbrella, guaranteed under the Mutual Defence Treaty signed soon after defeat in World War Two, Japan has tended to hang on to U.S. foreign policy apron strings. This has lead some critics to describe Japan as a political pygmy, with no independent foreign policy and no meaningful defence capability.

Strength

The country's immense economic strength makes such inertia increasingly anachronistic. Acknowledging this, Mr Suzuki says: "Japan, as a member of the Western industrialised democracies, is determined to make a contribution to the cause of world peace and stability in consonance with its capability and policies."

Just what this contribution will be is proving hard to define. Since the war, policies have focused on certain limited imperatives: reparation for war damage—particularly in China and South East Asia; promotion of trading interests; and strengthening regional allies.

After 30 years there is a general feeling that Japan has fulfilled its commitment for war reparations. But the scars left from that period nurture a deepseated commitment to passivism at home, and an almost obsessive concern abroad to convince neighbours that Japan has no desire to use its muscle—either military or economic.

The end result is an almost pathological urge towards caution. Fears were reinforced again just a decade ago, when the over-aggressive activities of Japanese traders in South East Asia prompted deeply wounding attacks on Japan as an economic predator.

A number of developments have taken place over the past decade forcing Japan to formulate a global foreign policy. First is the single fact of her immense economic importance.

Resentment

It is inappropriate that the world's second most powerful free economy should take the lead from others on all foreign policy issues. Also, many Western allies resent the pace of Japanese economic growth. They feel that much of this growth can be attributed to the fact that Japan's spending on its strategic commitments—mainly defence—is unjustifiably small.

The second major development was the oil shock of 1973. The Foreign Ministry in Tokyo admits that until that date, Japan's foreign relations with the Middle East were non-existent. Here was a threat to the Japanese economy, with no oil resources of its own, that was also a threat to the global economy. It could not be tackled piecemeal, but needed an internationally formulated response.

The Soviet invasion of Afghanistan, coupled with comprehensive Soviet support for Vietnam and the unresolved dispute with Moscow over four islands known as the Northern Territories, has convinced the Japanese Government that the Soviet threat must also be resisted through international co-operation.

Japan's strongest foreign policy links are with the U.S. Having taken refuge under the U.S. nuclear umbrella, defence policy is inextricably enmeshed with that of the U.S. Trade links reinforce these links, and have led to close consultation on almost all foreign policy issues.

It is probable that the U.S. has pressed Japan hard over the need for a more active foreign policy. A catalyst has no doubt been the mounting cost of U.S. global defence commitments, and a growing desire to see Japan take on a larger share of the burden.

It has forced the Japanese Government to repeat ever-more forcefully its refusal to assume any defence role beyond its own shores. Japan will carry a greater share of the cost of maintaining U.S. military bases on Japanese soil. It will boost its own defence capabilities—though not as fast as the U.S. would like—and it is prepared to provide some air and anti-submarine cover.

But most of Japan's assistance to U.S. defence efforts will come in the covert form of economic aid to developing countries either in Asia or in areas of conflict. Thus Thailand, bordering the conflict inside Kampuchea; Pakistan, affected by over 1m refugees from Soviet-occupied Afghanistan; Egypt and Turkey will get major aid packages from Japan.

Despite disagreements over the extent of Japan's defence role, and domestic controversy over the nature of the alliance with the U.S.—relations with the Reagan Administration seem much better than those with Carter.

The Japanese had been seriously worried by the former President's call for the withdrawal of U.S. troops from South Korea—a move which brought into question the strength of the U.S. commitment to defend Japan. They were also distressed by Carter's revision of policy on nuclear reprocessing. There is a feeling in Tokyo that the new regime in Washington is much more alive to Japan's and the Pacific region's interests.

Japan still gives overriding importance to its political role inside Asia. The war in Kampuchea is a war in its backyard, just as instability in Poland is an upset in Europe's backyard. The need to create stability and to strengthen allies is seen as a first priority and is the basis for a special relationship with the member states of the Association of South East Asian Nations (ASEAN), grouping Singapore, Thailand, Malaysia, Indonesia and the Philippines.

It was no accident that the Prime Minister chose to visit the five ASEAN capitals on his first overseas tour. Japan has played an important part in nurturing ASEAN from infancy, and Mr Suzuki is keen to build on the good relations established in 1977 by the then Prime Minister, Mr Takeo Fukuda.

Japan unashamedly channels 30 per cent of all its bilateral aid to the five ASEAN countries (a further 40 per cent goes to other Asian states). Its interest in promoting economic growth and political stability in these countries is clearly expressed—it is keen to see a larger community of economically powerful nations in the Pacific region, and sees economic development as a powerful weapon against Communist subversion or Soviet encroachments.

Relations with Europe are poorly developed by comparison with those with the U.S. and other Asian nations. Tokyo feels relations are retarded by an undue European obsession with Japan as a trading threat, and is keen to present itself more as an equal partner in an alliance of industrial democracies.

It is a convert to the U.S. policy of trilateralism—in which the U.S., Japan and Western Europe comprise a "special community of interest"—a group of nations with "the potential to shape from the shocks and crises of the 1970s an international order congenial to democratic values."

Prime Minister Suzuki noted just three weeks ago in London: "Japan and the U.S. on the one hand have long enjoyed close relations and so have the U.S. and Western Europe on the other hand. Therefore, the urgent task facing us at present is to strengthen the third side of the triangle."

Investment

In pursuit of stronger links, the Japanese Government seems prepared to accommodate some of the less xenophibic European demands for trade restraint. It is also likely to encourage further European exports to Japan, and is talking to Japanese industry about major investments in Europe.

In due course it is inevitable that Japan should become more closely involved in the international processes of political consultation that were at one time the prerogative of the U.S. and a tiny group of European nations. But its might remains economic, and so it seems likely that Japanese diplomacy will be developed most effectively in this area.

Japanese foreign ministry officials are convinced that the country can play a forceful foreign policy role without playing any direct part in global defence. Through active promotion of overseas aid, steady investment in developing countries, the establishment of joint ventures and encouragement of technology transfer, they feel they can play an economic role that is complementary to the role being played by the U.S. in Asia and by NATO member states in Europe.

By stimulating growth in the world's free economies, Japan can develop economic diplomacy in a valuable and distinctive way. In matters of defence, in the words of one Western diplomat in Tokyo, "Japan doesn't have to be anything other than a porcupine."

Policy of enlightened self-interest

INTERNATIONAL AID

DAVID DODWELL

WHILE MANY leading aid donors around the world are growing cold to the idea of international aid, the Japanese Government is at last beginning to warm to the idea.

Pursuing what the Government calls a policy of enlightened self-interest, there are plans to boost official development assistance from just over $10.7bn during the past five years to $21.4bn in the five years to 1985.

In response to criticism that Japanese aid is rarely in grant form, and is often closely tied to the purchase of Japanese goods, the Government has plans progressively to liberalise the terms on which it offers aid.

Japan's aid flows mainly to the countries of Asia, with the five member states of the Association of South East Asian Nations (ASEAN) taking the lion's share. This underlines Japan's preference for channelling funds towards countries where it has long-standing cultural and trading links, and highlights the country's economic and strategic priorities.

While major aid donors like the U.S. and the UK have been cutting back on aid projects, Japan's aid has been rising rapidly from the low base of five years ago. From $1.1bn in 1976 (0.2 per cent of GNP) it rose to $3.3bn in 1980 (0.32 per cent of GNP).

This lifted Japan to fourth place in absolute terms among donor nations, with only the U.S., France and West Germany contributing more. But it left Japan in 11th place in GNP terms.

The Government clearly states its reasons for bucking the trend. Dr Saburo Okita, government *representative* for external economic relations, says: "Whether we like it or not we are a considerable economic power. Since we never intend to use this power in a military way, the influence we have should be of an economic nature.

"There is a sense of enlightened self interest here. If poorer countries succeed in developing, then this must have a favourable impact on the Japanese economy."

Japan's interest is not simply *economic*, but also strategic. Staying at arms length from U.S. plans to boost defence spending, to raise its military presence in the Indian Ocean and to offer arms to countries threatened by conflict in Asia—notably Pakistan and Thailand—Japan believes any Soviet threat can best be thwarted by offers of economic aid.

This explains the emergence of "strategic" aid over the past year—about $150m to Pakistan, and smaller sums to Egypt and Turkey. Thailand, already a leading beneficiary of Japanese aid, overtook Indonesia in 1980 as the primary recipient of aid (about $310m compared with Indonesia's $290m) largely because of its closeness to conflict in Kampuchea.

Biased

Japan has always admitted that its aid policy is blatantly biased towards its own "back *yard*"—the developing countries of Asia. Of bilateral aid totalling $1.9bn in 1979, $1.33bn went to Asia—about 70 per cent. The five ASEAN member states received about $600m of multilateral aid totalling over $700m. More than $200m went to the Asian Development Bank, where Japan is the leading donor.

At the same time its efforts have had to be made with considerable caution. Many of the people of south-east Asia still have memories scarred by Japanese military aggression during the Second World War.

More recently there has been hostility about Japanese "economic imperialism." The Japanese Government is still acutely sensitive about the disastrous tour of south-east Asia in 1974 by the then Prime Minister, Mr Tanaka Kakuei. The Prime Minister had to be airlifted out of protests in Jakarta, and met a similarly ugly mood in Bangkok. The cause was seen to be resentment at the encroachment of Japanese traders.

Such events have turned Japan into what one author called "the timid colossus." But this timidity is on the wane, and Japan's boosted aid efforts are one sign of this.

Relations with the region have improved considerably in the past six years. This was demonstrated by Prime Minister Zenko Suzuki's successful tour of ASEAN in January this year, and has borne fruit in an exceptional aid arrangement with Thailand.

Since Japan supplies 30 per cent of Thailand's concessional aid (and 70 per cent of its bilateral aid), and is the country's leading trade partner, the Government of Gen Prem Tinsulanond has invited an economic mission to Bangkok to advise the Thai Government o nthe shape of its fifth five-year plan, due to be launched in October.

As well as advising on plan implementation, Japanese economists aim to co-ordinate aid efforts so that they complement government plans as much as possible.

This aid arrangement with Thailand seems much to Japan's liking. The Government has a strong preference for integrated aid packages, involving Japanese experts and advisors and technical co-operation involving long term economic projects. Such a package in Thailand could involve the development of ports and an industrial hinterland on the eastern seaboard south of Bangkok, where the off-shore gas pipeline reaches land.

This Japanese preference has met with only modest response among other aid recipients. Most developing countries have a strong preference for aid to be as unspecific as possible—ideally straight-forward balance of payments support. They are reluctant to become locked into the technology of one particular donor, as is possible with bilateral technical co-operation.

In the case of Japan, such co-operation has other drawbacks: the Japanese language is not widely spoken, so expertise is difficult to transmit. There are also difficulties in recruiting Japanese experts to work abroad, mainly because of the life-time employment system adopted by most major Japanese industries.

Technical co-operation therefore remains stuck at about 10 per cent of ODA, and is unlikely to rise in the foreseeable future.

Despite Japan's generally unimpressive past record as an aid giver, the success in doubling aid over the past five years, coupled with the commitment to a further doubling in the five years to come, is no mean achievement. This is underlined when one bears in *mind* the growing antipathy towards aid, and the world economic recession which has fuelled this mood. Japan too has faced severe economic problems.

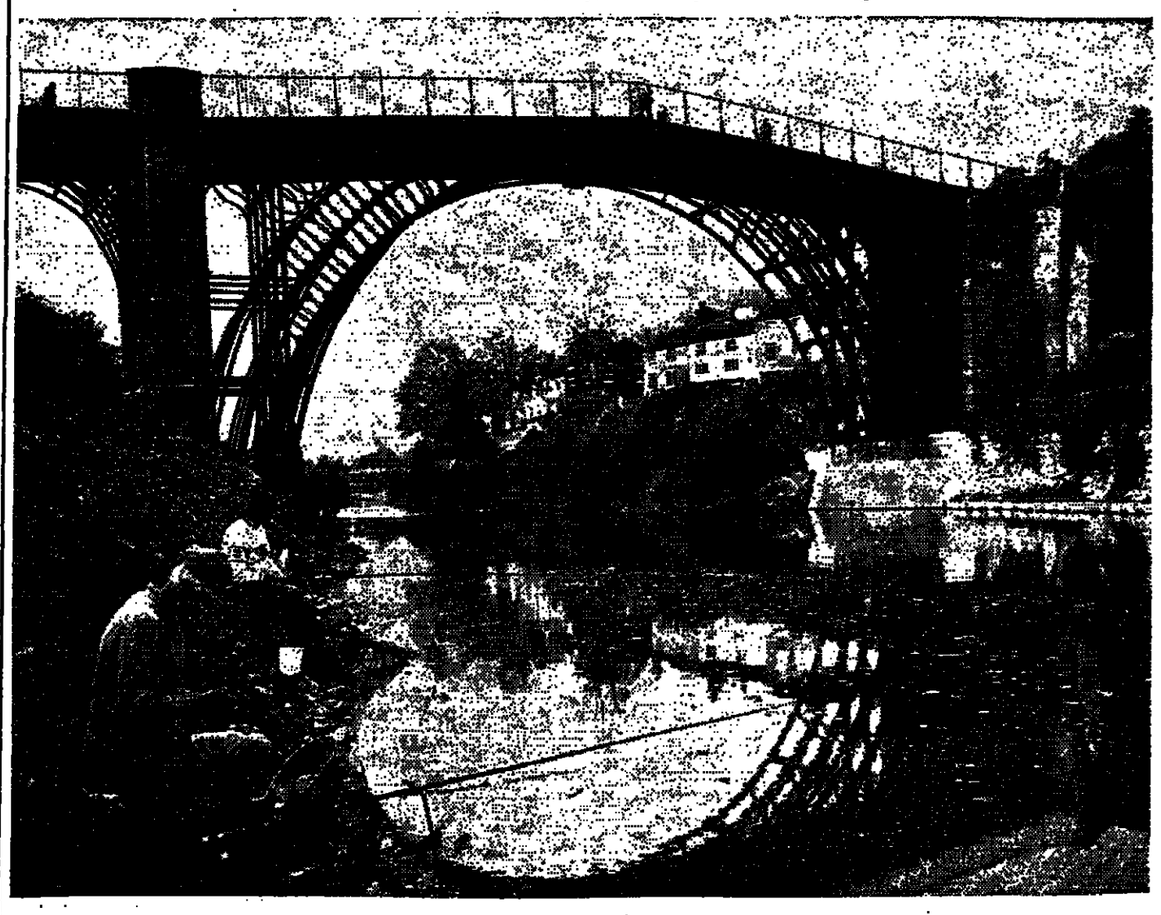
With a massive budget deficit, the Government has been forced to seek major spending cuts. Over 1981 and 1982 it is tied to zero growth in spending. This means that many areas—including welfare payments—are to be cut. The ceiling on defence spending is to be about 7 per cent. In this context, a ceiling of 11.4 per cent growth in aid spending has taken a great deal of fighting for.

Significant

The improvement in the quality of Japan's aid should not be ignored. In 1975, almost 40 per cent of Japan's bilateral aid was formally tied. This fell to 16 per cent in 1979, and was actually eliminated in 1980. Assistance on grant terms grew from $673m in 1979 to $914m last year, rising from 25 per cent to 28 per cent of all aid.

There seems no doubt that as other Western aid donors curb their aid budgets, so Japan's contributions will assume greater importance. But the overall aid climate is deteriorating, with cutbacks elsewhere far outweighing Japan's increased commitments.

For this reason, starting with the recent tour of European capitals, Japan's Prime Minister Suzuki and other Government leaders have begun a diplomatic offensive on aid. They will be arguing hard that everyone's best interests—both economic and strategic—are served by dispensing aid to generate growth in the developing countries of Asia, Africa and Latin America.



Vision of the "Super Computer"

DEVELOPMENTS IN COMPUTERS

MIKE THARP

ON THE east wall of one of the most important sections of Japan's Ministry of International Trade and Industry (MITI) is a black and white mural depicting, with child-like simplicity, MITI's vision of the 1980s. Spread across the front of the Electronics Policy Division of the Machinery and Information Industries Bureau, it shows humans reaping the benefits of the world's most advanced machines.

People are flying in miniversions of the Space Shuttle, diving in compact submarines, refining oil, riding a monorail. There are people in their homes, a hospital and a school. The common link among all these activities is represented by video terminals and what appear to be microwave dishes inside buildings and on top of roofs.

The mural outlines graphically the "informisation" of Japan—or what Mr Shohei Kurihara, director general of the crucial MITI bureau, calls a revolution. His Ministry is responsible for co-ordinating the Government-industry effort to maintain and upgrade Japan's international competitiveness in the broad field of data processing and transmission. The mission extends up to the end of this century.

From the beginning of this fiscal year (April 1 last) that effort has coalesced around three distinct but interdependent projects. People familiar with previous public-private sector co-operation in Japan will recognise the potential implications for the country's overseas business competitors.

The first project, dubbed the Super Computer by Mr Sozaburo Okamatsu, the thoughtful and articulate director of MITI's electronics policy division, calls for an ultra-high-speed computer that will be used only for scientific and technical calculations. The Super Computer, 1,000 times faster than current computers, will ultimately have widespread commercial applications.

Mr Okamatsu explains that the multipurpose processor will, for example, allow much higher resolution photographs from satellites which could make for more accurate weather forecasting. If it also contributes, as many predict, to the development of a new "computational" physics different from present experimental physics, other applications could follow. Scientists and engineers could calculate designs for new aircraft or space vehicles without using wind tunnels to conduct experiments. Nuclear reactors could also be designed with the Super Computer.

MITI's target is to develop the computer over the next eight years, starting in January 1982. The budget is only Y30m for the past three months of Japan's current fiscal year, ending next March 31. But the funding will total up to Y30bn over the project's eight-year term.

Japan's four major computer makers — Fujitsu, Hitachi, Nippon Electric Company and Mitsubishi Electric Company—are likely to participate in the project in one way or another. Toshiba Corporation, Oki Electric Company and NTIS, a joint marketing venture between Toshiba and Nippon Electric, may also join.

Ten-year project

The second project, and the one most widely known outside Japan, is to develop what the Japanese call the Fifth Generation Computer. It will presumably be in service during the 1990s.

Scheduled to extend over a 10-year period, the project will be the most comprehensive example to date of government-business co-ordination on a high technology enterprise. Participants hope to have a prototype operating by 1990.

Only Y15m has been allocated for the project this fiscal year because initial research will be concentrated simply on determining a development schedule and the composition of a suitable research organisation to pursue the project. Later spending will depend on the early results of that research.

If it succeeds this is the project that will cause the mural figures on MITI's wall to come to life. Proponents hope the product of 10 years of R and D will be a computer easy to use by ordinary people.

One feature of the Fifth Generation Computer will be a structure completely different from that of present computers. The integrated circuit devices inside will be the same, however, as those eventually used in the Super Computer; there are currently three candidates under consideration. These are the Josephson Junction element, gallium arsenide and the HEMT, or high electron mobility transistor, announced last year by Fujitsu.

Whatever method is chosen it will not be silicon-based, as are present integrated circuits. Mr Bunichi Oguchi, executive vice-president of Fujitsu Laboratories, observes that by super-cooling the HEMT device "we can get 50 times faster speed than ordinary silicon."

MITI will sponsor an international symposium on the Fifth Generation Computer in October and has invited researchers from the U.S., UK France and West Germany to discuss the status and outlook of the projects.

Budget for the perfection of the devices themselves will reach Y30bn spread over 10 years. "We are criticised for being free riders on technology," concedes Mr Okamatsu, "but this [functional devices] project will develop new basic technology for the new industry."

Subsidies from the Japanese Government for the three latest ventures will range from one-third of the cost to 100 per cent and will be limited to spending for basic research, not for commercial applications, MITI insists.

Once the companies involved apply any of the research-developed results to products for the marketplace, and if they make a profit from those products, they must return the amount of the subsidy to the Government. In that sense MITI considers its funding more of a loan than a subsidy.

Although most observers credit the three-year VLSI (very large-scale integrated circuit) project, which ended last year, with accelerating Japan's progress in the information industries, there seems to be more hesitancy, if not outright scepticism, about the efficacy of at least part of the three new projects.

Function

Mr Hideo Ohta, recently appointed managing director of Mitsubishi Electric Company, notes that the Fifth Generation Computer involves R and D for a complete system — hardware and software—rather than for the microelectronic building blocks of the VLSI project. The Fifth Generation Computer will be devoted "more to final products, rather than only parts and knowhow," he says. "That will make it quite difficult for competitors to co-operate."

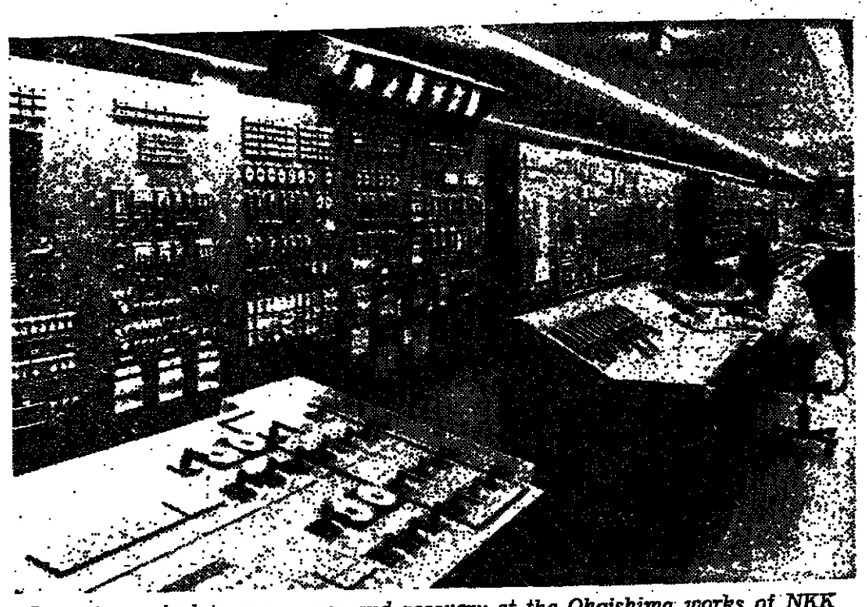
One interesting prospect for Japan's overseas competitors is the opportunity to participate, to a degree not yet determined, in some of the projects. IBM has been invited to join, and an official describes it as "not only a theory but a changing phenomenon, trying to involve foreign-based computer manufacturers."

IBM is unlikely to throw any of its corporate fortunes into a project that could later boomerang competitively, but smaller Western firms may.

A testing ground for the computer competition of the 1980s will be word processors using kanji, Chinese and Japanese characters. Several Japanese computer makers have developed their own software programs for kanji, but so has IBM-Japan, a wholly owned subsidiary of IBM. A central problem in any software development program for the Japanese will be financing it, says an analyst for Nomura Securities Company.

As the battle lines are drawn, probably with green electronic impulses on a terminal screen, MITI finds itself increasingly cast in the role of an observer on the ramparts of electronic data processing. Once the gruff sergeant-major lining up recalcitrant or inexperienced corporate recruits for the Information Revolution, the Ministry has lately assumed the posture of a commander who mainly watches action-hardened veterans as they struggle among themselves and against foreign competitors.

Mr Okamatsu defends his Ministry's new role. "Individual company projects are more short-term, more market-oriented. Government projects are more long-term. We show the direction."



Computers calculate energy use and recovery at the Ohgishima works of NKK (Nippon Kokan) in what is claimed to be the world's first energy control centre for a steel-making plant. All Ohgishima computers are connected to the NKK Tokyo head office so that instructions can be rapidly relayed from 22 miles away

The aim is world leadership in micro-electronic field

INTEGRATED CIRCUITS

JOHN HARTLEY

IN 1960 not many people would have believed that a calculating machine would some day be the size of a business card and as thin as a credit card. If certain technological breakthroughs are achieved by Japanese and Western researchers, the "downsizing" of machines will reach startling proportions.

Towards the end of this century, for example, the largest computer could be a desk-top model, and most computers will be hand-held. The vital parts that allow ever-smaller dimensions are integrated circuits, transistors and other elements integrated on a single silicon chip. The very large-scale integrated circuits (VLSI) expand the number of transistors on a chip so that it can perform more than one function. When LSI's and VLSI's are interconnected on a circuit board, they can form an entire computer.

The next generation of VLSIs will be created by using ever more complex, high-density semi-conductor structures. But there are ultimate physical limits on the capability of metal-oxide-silicon chips to conduct and insulate electrical current.

Thus at Fujitsu's Kanagawa laboratory, Nippon Electric's Kumamoto plant, Mitsubishi Electric's Itami works and other corporate experimental stations around Japan, technicians and scientists are seeking to develop the technology that could propel Japan into the world leadership in integrated circuits.

Those researchers will soon be joined by Government and academic counterparts in yet another Japanese joint-venture similar to the three-year vlsi project completed in 1980. That co-operative effort is credited by both industry and Government with advancing Japanese competitiveness with the U.S. in that field.

One of the MITI co-ordinated programmes will concentrate on three areas: developing new materials for an even greater degree of integration in microelectronics: biomass technology, especially genetic engineering; and an effort to develop new functional devices with potential applications in all kinds of electronic machinery.

It is this final project that will have the most relevance to LSIs and semi-conductors. Three kinds of functional devices will be examined in MITI's long-term — 10 to 20 years — programme. The first year's budget is Y627m (£1.4m) but funding will swell to Y30bn over the next nine years.

Industry and government researchers will probe the possibilities of three kinds of functional devices. The first is called the super-lattice device, and will, in the words of Sozaburo Okamatsu of MITI's electronics policy division, "put devices in the state of atoms." Such miniaturisation will allow much more integration than exists, and with shorter distances to be traversed by electrical impulses on the chip (distances measured in microns — a millionth of a metre — and submicrons) speed and reliability could be enhanced.

The second area of research is with three-dimensional devices. Currently, patterns are produced by photolithography on top of a single silicon chip. If the scientists succeed in putting another chip on top of the first, they will have a two-ply device, a semiconductor sandwich on which more functions can be placed.

The final area of attention on functional devices will be an attempt to develop chips that can withstand extremes of temperature, vibration and radiation. They could then be used effectively in satellites or as sensors in a nuclear reactor.

A specific research method for the new functional devices project has not yet been determined by MITI, but its general outline will resemble what the Japanese call kangakkumin—a wedding of Government, universities and companies. As with the VLSI project, the joint studies will be confined to basic research, with any commercial applications done later by the companies themselves.

Whatever the progress of the MITI project, Japanese companies are proceeding with their own autonomous programmes, geared to the marketplace. "These are important areas, and we have to continue our own R and D whether or not we are invited by MITI," says Kimio Sato, general manager of Mitsubishi Electric's semiconductor division. "It is the same with other companies."

Semiconductors and related LSI devices account for about 7 per cent of Mitsubishi Electric's annual sales, but the ratio will soon grow to around 10 per cent, a trend common among nearly all the Japanese companies in the field.

Nippon Electric is acknowledged to be one of the world leaders, having begun research on semiconductors in the 1940s and being the first Japanese company to begin semiconductor production in 1955. The company is investing its money in two areas that it hopes will push back the frontiers of integrated circuit technology.

One is gallium arsenide as an ultimate substitute for silicon. NEC has used gallium arsenide in transistors since 1970 and, as Keiske Yawata, general manager of NEC's international electron devices division notes with some pride, "there has been at least one NEC gallium arsenide transistor in every satellite the U.S. has launched."

However, NEC is now trying to use gallium arsenide on integrated circuits, not transistors, but the crystal technology for doing that remains in a primitive stage. Nor have researchers discovered an effective and viable method of production technology to integrate transistors on a single gallium arsenide chip.

The second focus of NEC's attention is the Josephson junction device which operates at the temperature of liquid helium — minus 270 degrees centigrade. Clearly, there are formidable obstacles in trying to produce a computer or other electronic machine for daily use that requires super-cooling by complex chemical equipment. Nevertheless, NEC and other Japanese manufacturers are mildly optimistic that a workable solution can be found within a decade.

Most manufacturers are increasing their research and development spending for these and similar technological development efforts. Mitsubishi Electric, for instance, spends 4 per cent of its total sales for overall R and D, but 12 per cent of integrated circuit revenues are ploughed back into further study. By 1985 the company projects 30 per cent annual growth in sales of integrated circuits, according to managing director Hideo Ohta.

The main product lines that will employ integrated circuits during the rest of the decade will continue to be computers, automobiles, video tape recorders, cameras, both single lens reflex and portable video, and video discs.

NEC and Mitsubishi Electric, among others, have already sold some electron devices to Japan's self-defence force, and it appears likely that demand from the military will grow, especially in the naval and aviation areas.

Integrated circuits have become one of the many bones of contention in the perennial U.S.-Japan trade friction, with smaller American makers arguing for restrictions on exports from Japan. However, both Governments agreed in May that they would lower their tariffs on integrated circuits to 4.2 per cent from 10.1 per cent in Japan's case and from 5.6 per cent for the U.S.

Another way the Japanese have sought to quell protectionist sentiment is to build production facilities in America and other markets. NEC, Hitachi, Toshiba and Fujitsu have established production plants in the U.S., and others are likely to follow.

It is said that the performance of integrated circuits has nearly doubled every year, and many experts believe the trend will continue, although more gradually. Bunichi Oguchi, executive vice president of Fujitsu Laboratories, suggests that after 256k-ram's are perfected, "one megabyte will be fulfilled, simply by a continuation of ordinary and traditional technology."

Role of telecommunications monopoly is questioned

NIPPON TELEGRAPH AND TELEPHONE (NTT)

JOHN HARTLEY

Details of goods available from a local supermarket can be "called up" on screen in this control room experiment to enable residents to make purchases via the communications system

WITH THE potential for an enormous increase in information transmission just around the corner, the role of NTT (Nippon Telegraph and Telephone), Japan's internal telecommunications monopoly, is being questioned. Like any corporation, NTT tries to push technological development into areas that will increase its business, but since it is a monopoly with limited operating rights, it is not necessarily moving in a direction that is in the best interest of its subscribers.

In theory, the Minister of Posts and Communications should keep NTT on the "rails" but obviously the NTT has much greater influence at the ministry than a private company would have which wanted to promote some entirely new technology. Private industry thinks it is in a David and Goliath situation in such confrontations—except that Goliath may be one of its biggest customers.

NTT's premise is not unnaturally that future communications systems should be based around the telephone lines, be it a question of electronic mail, or information for householders. Like British Telecom it is promoting a videotex system—called Captains—for home information. NTT claims the alternative, of an interactive cable TV, involves enormous cost in laying a new network of cables for little gain. However, because Japan is so mountainous, cable TV would be a distinct advantage in some regions.

It is certainly true that in the short term the videotex offers the greater potential, even if subscribers will end up with enormous telephone bills. So far, NTT has carried out field tests with Captains to 1,000 subscribers, and is to start a second series of tests with around 2,000 subscribers. The main weakness of Captains is that it takes a long time to update information — the weather forecast is daily, for example. The beauty of Prestel is that data can be changed very rapidly.

It could be argued that had private industry been responsible for this development the system would be more flexible. But in practice the inflexibility results mainly from the need to devise a system that can handle the complicated Chinese and Japanese characters. At the same time, once Captains is in operation, it will be difficult to scrap it in favour of some new system based on as-yet unknown technology.

Another area where NTT is working hard to guarantee itself a massive expansion in business is in facsimile transmission, which is already big business in Japan because most letters are handwritten in Japanese characters. Therefore it is convenient to transmit these letters by facsimile to branch offices.

NTT foresees a future in which there is a facsimile machine not just in every office, but in every home. It has devised a system of transmission, which will be used in the home in conjunction with new, inexpensive facsimile machines, called Minifax. NTT has developed the Minifax concept in conjunction with Fujitsu, Hitachi, Matsushita, Murata, NEC and Toshiba with the aim of reducing the cost to around £200, or about 25 per cent of current small office machines.

Signals

To keep control of transmissions NTT is developing a new transmission system, which can be used by any type of facsimile machine. The idea is that the data is still fed into the normal telephone line, but is then transferred to a facsimile branch line. The message will be turned into digital signals, stored on a memory, and then transferred through the special facsimile line to another terminal, which also has a big memory. Then the data will be relayed through the local telephone line to the subscriber.

The advantage of this system is that the data can be transmitted more quickly than through the normal lines, and the main trunk telephone lines will not become clogged by facsimile messages.

To handle the information transmission explosion NTT needs more telephone lines, so it is carrying out research into optical fibres, which are capable of carrying more data faster through tiny cables. NTT has confined itself to research and development of optical fibre cables of high efficiency, leaving the manufacturers to develop the production techniques.

In developing optical fibres, the aim is to reduce the amount of light lost during transmission and to reduce cost. If the light loss is excessive, many repeaters are needed to amplify the signals, thus increasing cost and complexity. Whereas British Telecom is working on the potentially inexpensive multiple compound fibres, NTT is concentrating on pure silicon fibres. NTT researchers claim that although these pure fibres are more expensive, they are more reliable and suffer less from light loss. They are relying on Japanese cable-makers to reduce the cost by streamlining the production process.

To enable production of a cable with minimum light loss NTT has devised a new production process called VAD-vapour phase axial deposition. The big advantage of this process, apart from the purity, is that cables up to 100 km long can be produced, whereas conventional techniques are limited to 3 to 5 km. Wherever optical fibres are joined together, there is a considerable loss of light, so this is an important breakthrough.

In this case, it seems that NTT's policy of controlling its own research has paid off. It has devised a high-quality fibre that can be produced in long lengths. Now it is up to the three companies producing the cables — Furukawa, Fujikura and Sumitomo—to streamline the manufacturing process. Inherently, though, the VAD technique, producing as it does long cables, is more akin to a mass-production technique than the methods used formerly. NTT intends to start installing optical fibres in 1983 in special applications such as between offices, and in environments where magnetism causes interference with normal lines starting. As yet it has no firm plan to start using the cables as telephone lines to subscribers' handsets.

Optical fibres are fundamental to any telephone company's business, and in the view of NTT, so are integrated circuits and high-speed computers. Thus it did research into very large scale integrations (VLSIs) before the project sponsored by MITI got under way, and now it is working on a Josephson Junction (JJ) computer, despite the fact that MITI has just started a mammoth project with the same aim.

NTT claims it needs switching systems 1,000 times faster than the telephone system if it is to transmit video pictures, so an ultra-fast computer is essential. The target is for the prototype computer, which will have very limited capability, to be built within three or four years. Its main feature will be very rapid processing, giving it 10 times the power of the new IBM 3081 processor.

Hiroo Toyoda, director of NTT's Electrical Communications Laboratory justifies this programme by pointing out that conventional semiconductors are developing so quickly that the electronics industry may not need JJ-type computers. He foresees the speed of silicon devices increasing five times in the next five years, and that this gradual progress will be more than enough for the electronics industry.

On the other hand Toyoda's target is for devices and circuits that are 100 times faster than silicon. Thus, he claims, the requirements of the telecommunications industry are unique and will remain that way.

If NTT continues to keep its research ahead of private industry it has every chance of keeping a tight grip on telecommunications, and all information communications in Japan.

The writer is Far East Editor for the Engineer and Electronics Times.

Important consequences in the area of computer development

NEW MATERIALS

JOHN HARTLEY

TO PUSH the information revolution forwards, electronic devices that can handle data much faster are needed. Although large-scale computers may seem fast, there is considerable room for improvement. This is partly because they are large, usually being housed in special computer centres. Ideally, the large computer should just be tucked in the corner of the office, and some of them should be fast enough to process data at least 10 times as quickly as at present. This speed is needed both for weather forecasting and complex technological calculations.

To speed up processing, electronic devices that can switch quickly are needed. One way of speeding up the process is to use circuits with finer lines more closely packed together, and that is one reason why so much effort has been put into miniaturisation, such as into the production of very large scale integrations (VLSIs).

Emphasis

Japan has already made progress in miniaturisation through the government-sponsored VLSI project, but now the emphasis is switching to new materials which offer a further big jump forwards. Some of these materials offer the prospects of building a large-scale computer the size of a filing cabinet.

In some respects the research into these materials involves the same sort of talents needed in the VLSI project. It is a case of taking materials that are known for certain characteristics, but which have certain problems, and gradually turning them into practical propositions. The research is mainly a question of development, in which the production process is an important feature.

For example, the most promising materials are gallium arsenide, and its derivative gallium aluminium arsenide. Another promising device that involves material research is the Josephson Junction, invented at Cambridge University in 1962. The concept of using gallium arsenide was developed by a researcher at IBM. But in both these cases the Japanese are doing as much research as anyone.

The performance of the semiconductor depends basically on the speed at which electrons are activated in the crystals, and in gallium arsenic, activation is six times quicker than in the silicon used nowadays. The material is already being used in radio communications, and is being developed for use in computers.

Apart from its inherently high speed of operation, gallium arsenic has another important feature that will help push the information revolution along—it can be used as the substrate for laser semiconductors, digital/optical converters and some digital displays. The importance of this is that as the power of conventional copper cables become a limiting factor. They are unable to transmit data between a computer and terminal anything like as quickly as the data can be generated.

To solve that problem, slim optical fibres, which can transmit through a vast number of channels very quickly, are coming into use. However, to some extent, the optical/digital converters, needed between the computer and optical fibres, are the weak link. Because they are made from different materials from the integrated circuits, they are separate units, with inevitably higher prices and lower reliability. With gallium arsenic, integrations can include these converters, thus reducing size and cost, while increasing reliability.

In Japan, NTT, the telecommunications monopoly, and Fujitsu have both done a lot of research into gallium arsenic, as have some other organisations under the auspices of the Ministry of International Trade and Industry (MITI). Fujitsu seems to have made most progress with its combination of gallium arsenic and gallium aluminium arsenic called the High Energy Mobility Transistor (HEMT). Apart from the difference in materials, the construction of the HEMT is similar to that of a silicon device, although great precision is needed in controlling the proportion of some materials—it is actually a case of counting the atoms individually! Fujitsu claims that this can be done without too much difficulty with the aid of a computer controlled machine. Obtaining the necessary level of precision is a development project which seems ideal for Japanese companies.

Advantages

Already, the advantages of the HEMT are clear. At room temperatures it can operate theoretically 10 times as fast as silicon. But if the temperature is powered to the level of liquid nitrogen, the HEMT will operate 25 times more quickly than silicon devices. Since nitrogen is widely available, Fujitsu claims that cooling to the temperature of −196 deg C is not expensive.

So far, actual HEMTS have shown a gain in operating speed of 12 times, and further increases are merely a question of improving the manufacturing technique, say the Fujitsu researchers. For this reason Fujitsu is backing its HEMT as the device of the super-fast computer of the 1990s against the Josephson Junction (JJs) being developed elsewhere.

The JJ depends on the superconductivity effect that occurs in some metals at absolute zero (-273 deg. C.). Not only does this effect result in very fast operation of devices, but power consumption is very low. IBM is doing a lot of work on JJs, and recently, NTT began a three-year project to develop a small computer based on JJs.

One of the main problems with JJs is that they have to be cooled rapidly, and that results in thermal stresses, so once again the key is in materials research. NTT has been working on lead alloys, but is now putting more emphasis on germanium and niobium in an attempt to improve durability. The target is a computer that will operate 100 times faster than silicon.

MITI, which has a soundly-based reputation for pushing long-term research forwards, has recently set in motion three projects aimed at giving Japan a healthy slice of the enormous business that will come from the information revolution. One of these is in parallel to the NTT work on JJs, another is for a fifth-generation computer, while the third is aimed at producing materials for the 21st century.

So far virtually no work has been done on the materials side, but this is a 20-year project aimed at developing low-cost ceramics of high performance and some new semiconductor elements. MITI envisages that by the next century ultra-miniature devices, in which the circuits are arranged in levels of atoms, three-dimensional devices, and devices for arduous conditions, will be needed.

New materials may be needed to make these devices possible, the first two being intended to produce the sort of level of miniaturisation about which electronics experts dream. For example, the three-dimensional devices would incorporate several layers whose elements were interconnected together. Thus one three-dimensional chip would replace the mass of chips and devices that currently sit on a circuit board.

Clearly the Japanese are keen that they not only get their fair share of the business in the next decade as information transmission explodes, but that they are ready for the developments that will come in the next century as well.

Pacemaker despite late start

PRODUCTIVITY

CHARLES SMITH

JAPAN MADE a late start compared with most Western nations in consciously trying to increase productivity. The Japan Productivity Centre, a government-assisted body which acts as the flagship of the national productivity movement was not founded until 1955, six years after Britain had launched its productivity movement with the assistance of the U.S.

As with so many other ideas borrowed from the West, however, the notion of deliberately trying to promote an increase in industrial productivity through technological advance or by improved management methods, seems to have flourished more in Japan than on its native soil.

Japan's national productivity index (the index covering all types of economic activity, including agriculture and services) climbed by an average of 9 per cent per year during the final decade of ultra-rapid economic growth (1964-73) or by more than twice the average for advanced Western industrial countries during the same period. Since 1973 the index has performed less remarkably, scoring a 3.9 per cent average growth rate for the period from 1976 to 1979.

Even this was 0.9 per cent better than the best Western rate—for West Germany—and the productivity performance of manufacturing industry alone appears to have easily outpaced that of other economic sectors. In 1979-1980 with industry productivity growing by over 12 per cent on a year-to-year basis, and wages rising only 7 to 8 per cent Japan's effective industrial wage costs were falling by between 3 and 5 percentage points per year. This gives the country a valuable edge in world trade over its les productive Western competitors.

The reasons Japan has progressed by leaps and bounds in improving its industrial productivity, while other advanced industrial nations have for the most part made painfully slow progress are not particularly obscure, although that may not make them easy to duplicate elsewhere.

Fundamental

The first, and most fundamental factor in the whole process has been a shift of industrial structure away from low productivity sectors such as textiles and light industry into medium or highly productive sectors such as machinery and electronics over a period of several decades.

Structural shifts within Japanese industry have been consciously promoted through a series of government plans—the famous Miti "visions"—as well as by the lending policies of banks and the investment policies of industry. Experts at the Economic Planning Agency have no precise estimate of the weight of structural change in determining overall productivity increases, but there seems little doubt that it has been of prime importance.

The second factor in Japan's recipe for productivity has concerned the rate of investment in industry—as a ratio of gross national product—as opposed to the types of industry selected for investment. Between 15 and 20 per cent of Japan's GNP has been poured into the expansion or replacement of industrial facilities over the past three decades compared with 9 to 10 per cent in the U.S. and slightly more than 8 per cent in Brtain.

Heavy investment in production facilities not only means that production capacity tends to grow rapidly but also that the plant and equipment in most Japanese factories is young and hence sophisticated compared with that in most Western countries. It also means that the ratio of capital equipment to workers has grown fast, with the result that today a Japanese motor car assembly line worker is likely to have more impressive array of equipment at his disposal than a worker in a European or American factory.

The "robotisation" of Japanese industry, which has already reached the stage where about half the world's installed industrial robots are at work in Japanese factories is a recent and striking example of the super-mechanisation of Japanese factories. But the process of increasing the ratio of automated machinery to human workers in Japanese factories began many years before the start of today's robot revolution. Numerically-controlled machine tools have also achieved a high dissemination rate in Japan—and not only in the big factories that would probably also be using them in the U.S. or Europe.

The continuous improvement in capital/labour ratios in Japanese plants—or to put it in simpler terms the amount of automated machinery available for use by each worker—reflects a difference in management labour relations between Japan and the West as well as a different level of investment input. Automation in Japan has been regarded since the war as a factor in the overall expansion of the economy, and thus in the creation of more jobs in the long run, rather than as a means of depriving individual workers of their work places in a given factory at a given time.

Japanese workers have found it easier to take the long view of automation because of the lifetime employment system in use throughout Japanese industry. This means that workers are, in principle, secure against lay-offs in any conditions short of the bankruptcy of the company that employs them. Lifetime employment is not the only factor that has enabled Japanese industry to digest automation more easily than British industry. Almost equally important has been the practice of Japanese employers of moving workers regularly between different sections of the same plant thus creating a mobile attitude rather than one which stresses identity with a particular work place.

Pressures

Japan's improvements in productivity can be seen as a response to external pressures as well as to favourable conditions inside the country. These include the fact that the country had a lot of catching up to do after World War II, when there was a big gap in productivity and general levels of technology between Japan and every major Western country. There has also been the need to find some way of replacing the wealth taken out of the economy after OPEC abruptly raised its oil prices in 1973 and 1979.

Productivity growth since the first oil crisis has been deliberately stressed by the Japanese Government as a means of making up for Japan's energy handicap which is seen as more severe than that suffered by any other major industrial country.

Despite this there are some fears that the rate of industrial productivity improvement could slow down as the Japanese labour force begins to age rapidly.

In 1985 40 per cent of workers may be aged 45 or over. The steadily increasing importance of leisure, and stress on consumption versus savings, is showing in Japan's changing national life style. This is another factor that could eventually affect productivity.

Whether productivity increases do slow from the present trend level in industry of about 8 per cent per year it looks as if Japan will remain a hard pacemaker for other countries anxious to catch up in the productivity race.

The Japan Productivity Centre recently did a number of calculations on "absolute" productivity levels—as opposed to rates of growth — which indicated that while the manufacturing sectors of Japan and West Germany were about equally productive in 1976, West Germany's productivity level had slipped to 89 only two years later. On this scale the Japanese level stood at 100, the UK's productivity level in the same year was estimated at 52.9, and that of the U.S. was 114.0.

Given Japan's outstanding record it is hardly surprising that the Japan Productivity Centre, originally meant to channel American know-how into Japan receives about 600 visitors a year from nearly 30 different nations, all of whom seem anxious to uncover its productivity secrets. About half the visitors come from the U.S. with most of the rest from Europe, the Middle East and South East Asia. So far, according to the centre's chairman, Mr Kohei Goshi, not a single mission has arrived from Britain.

PRODUCTIVITY COMPARISONS

Index of productivity levels in secondary industry; Japan=100

	Japan	U.S.	West Germany	France	Britain
1976	100	131	100	100.7	56.7
1978	100	114	89	95.3*	52.9

* 1977 figure

Source: Japan Productivity Centre

JAPAN'S COMPETITIVE EDGE

	Year-on-year increase of productivity in manufacturing industry %		Wage increase %		Wage cost per unit of production increase or decrease %	
	Japan	U.S.	Japan	U.S.	Japan	U.S.
1978	8.0	1.7	6.4	9.0	−1.5	7.2
1979	12.1	1.8	6.2	8.5	−5.3	6.6
1980 (first half)	12.3	1.8	8.4	7.7	−3.5	5.8

Source: Economic Planning Agency.

Robots welcomed with pet names

AUTOMATION

DAVID DODWELL

JAPANESE WORKERS, far from being hostile to the growing population of industrial robots in their midst, have made many into celebrities. Robots carry girls' names, are often called after film stars, and are "prettied up" with ribbons. The only problem, workers say, is that no-one has managed to persuade robots to pay union dues.

Workers elsewhere in the world have been suspicious about, and sometime fiercely hostile to, the introduction of industrial robots. Often they have good reason, because automation can mean redundancy for them, and dwindling job opportunities for their children.

In Japan, however, robots have been welcomed. That is why Japan uses more robots in industry—about 75,000—than the rest of the world put together. And automation is one of the main reasons why Japanese industry boasts such price competitiveness worldwide.

It is often glibly said that willingness to accept automation can be attributed to the unique character of "the Japanese worker," and of Japanese industrial practices. This is only partly true, because Japanese workers, like their brothers throughout the world, would soon be up in arms if automation was threatening their jobs or their livelihoods.

Counterparts

Perhaps most important of all, Japanese workers have no looming fear of unemployment, as have many of their counterparts in Europe and the U.S. Unemployment, at less than 2 per cent, is lower than in any other industrialised economy.

Acute labour shortages in certain areas of industry have been a major incentive for industrialists to introduce robots. Dirty or heavy jobs have been relinquished willingly by workers. So, in the automobile industry, for example, much of the body welding and painting is now done by robots.

Even industries in difficulty—such as the steel and shipbuilding sectors—have won trade union approval for automation of heavy or unpleasant work.

While an unusually high concern over health and a good working environment has no doubt contributed to worker willingness to pass on unpleasant work to the more pliant robots, another major reason is claimed to be the remarkably high educational level of Japanese workers.

On the latest count, Britain employed almost 79,000 graduate scientists and engineers in industry. Japan employed almost 272,000. In 1978, around 6,900 students graduated in Britain with Bachelor degrees in engineering. In Japan, more than 71,000 graduated.

It is reasonable to assume that such a workforce (few in Japan leave school before the age of 18) would be keen to avoid heavy manual work, and keen to take on work requiring more intelligence, more initiative, and offering more job satisfaction.

Involvement

Japan's ubiquitous life-time employment system (in practice less universal than often implied in the West) not only reduces fears of possible redundancy, but generates a strong sense of involvement in one's company and its success.

Implicit in this "system" is a high level of job mobility. Workers are accustomed to periodical retraining for new jobs as new products or new technology are introduced. Such changes are by and large seen as challenges or opportunities, since they have never been accompanied by the fear of redundancy.

Such flexibility would never have been possible without careful efforts by management to consult workers and to nurture their sense of involvement in the company. Lengthy discussions take place on the introduction of any new technology or work practices. While union leaders complain that their views are often noted and discarded, they appreciate the advance warning they receive of any planned change in a company.

Japanese management efforts to maintain good relations with the workforce are helped by another ubiquitous institution of Japanese industrial practice—in-house trade unionism. When workers join a company at the age of 18, and intend to stay there for the rest of their working lives, it is hardly surprising that union leaders have their roots deep in the company, with the horizons of their activism coinciding with the factory boundaries.

They, and the workers they represent, share with the management an interest in the profitability and strong growth of the company. For most Japanese workers the enemy is not the boss but the competing manufacturer. And if automation can give the company a competitive edge, perhaps boosting profitability, then it would be widely accepted as being in the best interests of everyone in the organisation.

Against this background, it is hardly surprising that Japanese workers have taken "robotisation" not as a threat but as an opportunity—to press for shorter working hours (they work longer hours at present than workers in any other Western industrialised country) and to seek longer holidays (more than half of Japan's workforce takes only seven days' holiday a year or less).

These characteristics of Japanese industry and industrial relations may have eased the introduction of automation, but acceptance would have been slower without strong growth in demand for Japanese products.

Mr Kinichi Tamura, General manager for engineering at Nissan Motors, admitted: "Automation has taken place in a very favourable environment of growing output. It would have been much more difficult if our cars were not selling so well." Output of Nissan vehicles has more than trebled in ten years, mostly due to "rationalisation" costing about Y40bn.

Areas of quickest growth have seen the fastest automation—for example, the car industry, electronics, electrical engineering and chemicals. But even depressed industries like steel have sought automation. Even the shipbuilding industry, which has pared its workforce by 40,000 to 170,000 since 1973, sees its best way back to strength as the introduction of the most modern and efficient methods in automation.

A few signs are beginning to appear however which imply robots may soon no longer get "film-star" treatment at work. Having automated to such a high degree, and at considerable cost, many Japanese manufacturers are aware that jobs may soon be jeopardised unless steady growth in sales can be maintained.

This nervousness is fuelled by the vociferous protectionist lobbies in Europe and the U.S., and by the depth of economic recession even in countries such as West Germany.

Trade unionists have begun to discuss this problem, but do not yet see it as a threat. Even where a threat is admitted, it is seen as Western protectionism, not as automation.

More often discussed is the fear that robots, as they become more "intelligent," will begin to usurp jobs that workers are not keen to give up. Also that workers are suffering from "isolation" — a Marxist might call it alienation — because they are either surrounded by robots or because they are doing boring work keeping robots provisioned with spare parts and other raw materials.

One leading scientific journalist in Japan recently wrote that the 140 Japanese companies manufacturing industrial robots "are vying with one another to be the first to come out with a compact industrial robot that has the capacity to make judgments and to move about freely without creating a sense of fear in humans."

Problems of an ageing society

JAPAN IS fast becoming the "oldest" society in the world. The change is creating problems for Government and industry—problems that are expected to become progressively more serious over the next 30 years.

The Japanese Government has warned that State pension schemes will have to be radically changed between now and the end of the century if they are to withstand the strains created as the population becomes older.

It is already concerned about the mounting cost of health care for the elderly.

At the same time, industry is being forced to make fundamental changes. The long-standing policy of compulsory retirement at 55 is now in the process of being abandoned, in some cases at considerable cost. As the percentage of older people in the workforce increases, so the Japanese seniority wage system, where pay increases in proportion to age and length of service in a company, is having to be modified.

The rate at which Japanese society is ageing has no precedent anywhere else in the world. A country like France saw its population aged 65 or over, grow from 5 per cent of the total to 12 per cent during a period of 170 years. The same change took 75 years in West Germany, but will take just 45 years in Japan.

Rapid change

People aged 60 and over, just 8 per cent of the population in 1955, will make up an estimated 18 per cent in 1995.

This rapid change is due to the coincidence of two factors. First, Japanese people can now expect to live longer than people in any other country in the world—men to 73 and women to over 78. At the same time, with the exception of a brief baby-boom for two years after World War Two, the birth rate in Japan has been among the lowest in the world—less than one per cent.

As the proportion of the population reaching middle and old age has grown, so the Government has been the first to raise alarm signals.

State pension schemes which are currently comfortable in surplus with contributions from wage-earners outweighing pension payments by over Y3,350bn a year are expected by the turn of the century to be in chronic and permanent deficit —about Y5,300bn a year.

As the retired population grows, both in absolute terms and as a percentage of the population, so an ever increasing proportion of a wage-earner's salary will be taxed in order to support them.

Whereas at present, each pensioner in Japan is supported by contributions from almost 13 wage-earners, by the year 2,000, there will be less than four workers to every pensioner.

Pension contributions which currently account for just 10 per cent of the average salary will, by 2,000, account for almost 18 per cent, and by 2,010 for a fomidable 30 per cent of every man's salary.

By that stage, the Ministry of Finance predicts, the State pension system, and the tax system supporting it, will have collapsed.

Medical provision, which cost the Government Y2,500bn in 1970 (just 4.1 per cent of national income) rose by 1980 to Y13,000bn (6.1 per cent of national income). By the year 2000, the Government predicts medical spending will account for 7.3 per cent of national income.

The Finance Ministry argues that the only way of avoiding an intolerable tax burden or a collapse of the national welfare system is to introduce two fundamental changes: first, the pensionable age will have to rise from 60 to 65. Second, companies must be persuaded to raise their retirement age from the current average of about 57 to at least 60 and progressively to 65.

The crux for industry is the issue of retirement age. The official retirement age of 55 has long been favoured by industry as a way of keeping wage costs down, and of helping to ensure a steady flow of promotion opportunities for younger workers.

The seniority wage system, for all its advantages in maintaining the long term loyalty of workers, has one important drawback: it makes old workers extremely costly.

Official retirement rarely marks the actual end of a worker's life. Industry bosses use the official ceiling as a way of dispensing with expensive older workers. This allows steady recruitment of cheaper workers straight from schools and colleges.

For the "retired" worker, departing with a "golden handshake" amounting on average to about two years' salary, it is essential to find a new job, albeit at lower pay. This would help to tide them over the difficult period between retirement and the age of 60 when they become eligible for a state pension.

Industrialists first began to relax the retirement ceiling in the early 1970s, initially under pressure from the Government, but later in response to increasing pressure from retiring workers themselves.

The industrial recession following the oil price hike in 1973 coincided in Japan with a trend towards automation which made it steadily more difficult for retired workers to find new jobs.

Estimates

Despite a very low unemployment level in Japan, aged workers make up an abnormally large proportion of the unemployed population. The Ministry of Labour estimates that 200,000 of the country's 1.2m unemployed are over 55, and a further 240,000 are between the ages of 40 and 55. Unemployment agencies report that any job advertisement for which older workers are eligible attracts at least 10 applicants.

With unemployment and possible hardship facing a worker close to 55, the obvious alternative was to fight for an extension of the official retirement age.

The first industries to respond were the car and electronics industries, both of which were buoyant in the early 1970s and both of which had an acute labour shortage. But the "oil shock" of 1973 froze the trend, plunging industries such as steel and ship building into recession and making them unwilling or unable to afford an extension of retirement. For them, the problem was how to trim the workforce, not how to enlarge it.

In the past two years, companies have again begun to respond to worker demands to raise the retirement age. Nippon Steel, which shelved its retirement-raising plans during 1973, has in the past few months reached agreement with workers on a new retirement policy. Their case offers a good example of the difficulties involved.

Since 1973, declining world demand for steel, coupled with rapid automation of the industry, has forced the company to trim the workforce from 80,000 to 69,500. At last, the workforce has stabilised, and the company feels it can accept worker demands.

Over a period of five years, official retirement will progressively be raised to 60. The company argues it cannot raise the age in one leap, mainly because that would halt recruitment for five years.

To ease some of the extra wage costs, Nippon Steel has won agreement from the workforce that the seniority wages system will reach a plateau at the age of 50. The "golden handshake" on retirement will be the same at 60 as it used to be at 55. It has also won agreement that foremen and managers will accept demotion to shop floor rank at 55, so that promotion opportunities are not choked for younger workers.

Despite these apparently stern conditions, the 1,600 workers who this year reach 55 have all asked to extend employment. The company predicts that the agreement will add $30m a year to its wage bill over the next 10 years.

Perhaps the most difficult problem arising with more old people in the society has yet to be faced. Japan's lifetime employment system generates a very close bond between worker and employer over 35, and sometimes 40, years.

Activities

Only now is thought being given to systematic preparation of workers approaching retirement age for what may be 15 years of leisure. Very little consideration has been given to leisure activities for old people.

In the past, the strong bonds of the extended family system have helped to provide support for the old and have given them a useful role. But there is now a strong trend towards the nuclear family, with young married couples preferring to live independently of their own parents.

As the old are expected to support themselves, and to find a role outside the extended family, so the Government must provide a guiding hand. At present, it does not know quite what hand to offer, or quite where it ought to guide.

DAVID DODWELL

The under-40s have taken to leisure in a big way

THE LEISURE INDUSTRY

DAVID DODWELL

AFTER BEING tangled up in the stream of lunchtime joggers circling Tokyo's Imperial Palace, or trapped in a traffic jam with the thousands making a break for the beaches on a Friday evening, one realises that the Japanese take their leisure very seriously indeed.

The post-war scorn for leisure as unproductive and a symptom of lethargy has long since died away. But Japan's one-time workaholics have silenced this criticism at the price of becoming leisureholics.

Experts on Japan's leisure industry claim there is a big divide between people above and below the age of 40. Those above tend to work overtime most days, work a six-day week, and take only a fraction of their annual holiday entitlement. Industrialists describe this phenomenon as one of the unique elements of the Japanese workforce, and attribute it to worker loyalty to their company. As a result, these people have little time for leisure.

The under-40s on the other hand have taken to leisure in a big way. Where the company offers a two-day weekend—only 45 per cent do so—they tend to take it. They also take their full annual holiday entitlement, though in Japan only 25 per cent of the workforce has more than 15 days holiday a year (compare this with 90 per cent for a worker in Paris, or 76 per cent for workers in London).

Attitudes to leisure in Japan are strongly influenced by the fact that it is such an intensely urbanised society. The southern seaboard of Honshu, stretching from Tokyo in the east to Osaka in the west, includes just 10 per cent of Japan's surface area, but accommodates 47 per cent of its 116m population. By 1977 Tokyo had a population density of 13,422 people per square kilometre, more than three times the density of London.

Such urbanisation has meant that leisure activity is traditionally group activity. It also means the Japanese are more than usually aware of the value of open space and countryside, and of the need to look after one's health in a congested urban environment. In a society where one's everyday life is socially visible, leisure has been effected by the need to "keep up with the Joneses." It is an area of conspicuous consumption.

The Government and government agencies produce mountains of more-or-less meaningless statistics reporting that almost 45m people dined out in 1979, that 42m people were sightseeing, while almost 41m went on "other day excursions" and so on. The Leisure Development Centre says profoundly: "Much weight is given to leisure activities relating to trips and excursions."

But behind the gobbledygook of figures, some important trends can be detected. Most prominently, leisure is becoming participative and individual rather than passive and a group activity. It is predominantly seen as a means to good health. Under the impetus of the 1964 Tokyo Olympics and the 1972 winter Olympics in Hokkaido, sporting interest has boomed.

Japan now boasts about 20m regular joggers, while 12m play golf and tennis. Over 34m take regular exercise, either gymnastics or callisthenics — about one person in three. Almost 8m Japanese ski during the winter. A smaller, but fast growing number have taken up more elite sports such as water skiing, wind surfing and sailing.

Travel

The same individualistic trend can be seen in Japanese leisure travel. From the pilgrimages of the middle ages to the package tours of the 1960s, the Japanese have always been eager tourists. But the emergence of the family car has meant a decline in group travel.

Overseas travel has followed an erratic trend. Fast rising incomes created a boom through the 1960s which slowed suddenly in 1973 with the oil crisis and a steep rise in fuel prices. But between 1976 and 1979 the boom resumed — it grew again, at an annual rate of 10 per cent. Almost 4m people travelled overseas in 1979. The sudden fall in value of the yen in October 1979 put another sharp brake on overseas travel, with a real decline of 1 per cent in the number of people going abroad.

Until recently, the majority of Japanese travelling abroad were men between the ages of 30 and 40—the notoriety of all-male Japanese sex-tours to Thailand, the Philippines and Hong Kong is widespread. This pattern dominated the overseas travel statistics: most trips were to Asian destinations (63 per cent in 1977) and were for just four or five days.

But this pattern has already begun to change, with an increasing number of overseas travellers being girls between the ages of 15 and 25—a group with rising incomes and few commitments. Such travellers ideally seek holidays in Europe or the U.S. and this is becoming more easily possible as annual holidays become longer.

Another leading leisure activity in Japan is eating out. In 1979 this consumed 13 per cent of all food spending. Interesting trends can be seen here too. With more women working, there is clearly a greater reluctance to cook an evening meal at home every day.

More significantly, the many thousands of men who every night after work used to slip into the Ginza hostess bars or pachinko parlours are now tending to travel home directly from work and spend their evening leisure time with the family—often going out for a meal.

This trend does not simply mean that Japanese men are becoming less chauvinistic: with shorter hours and more regular working day, evenings at home are easier to plan. The spread of two day weekends has also strengthened family social life.

Recreation at home is still widespread. Among the older generation, handicrafts and gardening are prominent. But among the young there is a fast growing proportion keen to learn how to play musical instruments. There is a piano in one in four Japanese households.

The leisure statisticians also claim that the traditional recreations of the tea ceremony, flower arranging and kimono-making are as buoyant as ever. These activities are part of okeikogoto, the bride-training intended to secure a good marriage for every respectable young girl. One suspects that in more liberal and informal times these recreations would be in decline, and that claims to the contrary would come from parents rather than the young. But there are no hard figures to back either case.

Whatever the trends or changes in leisure activity, it is clear that leisure is very big business in Japan. In 1980 the leisure market was estimated to be worth Y33,000bn (£75bn), 14 per cent up on 1979 and eight times larger than 1965. The Leisure Development Centre claims that by 1990 this will have almost quadrupled to Y117,000bn.

Perhaps the greatest boom will come in sports spending. Sales for sporting goods passed Y1,000bn in 1979. The market is so buoyant that in autumn last year Japan's second largest department store chain, Seibu, opened a sports plaza in Tokyo taking up four floors of one of its stores.

The Nichii supermarket chain has opened 19 swimming clubs alongside supermarkets hoping to attract shoppers who will leave their children in the pool while they do their weekly shopping.

Perhaps the most extraordinary boom is in sports foods. High protein and energy foods —once looked upon as invalid foods—are in immense demand among sports activists, despite high prices. Soyabean powders, wheatgerm oil, sports chocolates and sweets, stamina drinks and the like made up a Y15bn market in 1980.

The only area of commercial caution is over tennis. Several manufacturers fear the current boom will die away because by far the majority of tennis fans are young women—"much the most unreliable and fickle of all consumer groups" according to a spokesman at the Leisure Development Centre.

Working hours

It will still be a long time before Japan becomes a leisured society. Working hours are still long by Western standards and holidays are short. Amenities are often in short supply since the provision of leisure facilities has been a low priority on government budgets at both a municipal and national level.

Perhaps the most important constraint is the shortage of space. For example, congestion on urban golf courses is acute, membership fees exorbitant. About 12m people in Japan play golf, but the latent demand is much higher. Enthusiasts are often frustrated because golf links nearby are too expensive, and those cheap enough are too distant.

Similarly with marine sports. Just one in 200 Japanese families owns a yacht or boat, in part because the sport is expensive, but also because mooring berths are in very short supply on Japan's rugged coastline. Yacht manufacturers estimate a huge latent demand of about 1m boats in the next 10 years. But if all these yachts were to be berthed, port facilities would have to be built up in the next 10 years at seven times the rate they have over the past century.

It could be claimed that there is still scope for wider participation in individualistic sports like jogging. But in view of the jogger congestion around the Imperial Place, even that claim must be in doubt.

Key role in drafting new policies

THINK-TANKS

CHARLES SMITH

JAPAN'S THINK-TANKS are a small but fast growing industry. They also appear to be making a vital contribution to the process of information gathering and analysis which precedes the drafting of government policies.

Although the think-tank industry belongs to the private sector nearly three-quarters of its work is done for the Central Government or for local governments and public corporations.

Prestigious and powerful ministries, such as the Ministry of International Trade and Industry, are not in the habit of acknowledging their debts to private research organisations. But, according to one of the organisations concerned, much of the material in MITI's famous series of Visions of Japan's industrial future originates from studies done by groups of specialists in the private think-tanks.

Japan had about 240 think-tanks at the last count, ranging from large and internationally known institutions such as Nomura Research Institute and Mitsubishi Research Institute to tiny one-man organisations dealing in highly specialised branches of research. Total industry turnover is very roughly estimated at Yen 50bn (£110m) per year but has been growing rapidly.

Nearly all the growth has happened since 1970 when the problems raised by two decades of rapid economic growth first began to appear complex enough to require specialised outside attention rather than routine scrutiny by bureaucrats.

Nomura Research Institute, an affiliate of Nomura Securities whose shares are held by various members of the Nomura group, is the oldest Japanese think-tank of any size—although it only celebrated its 15th birthday in 1980. Founded by Nomura Securities to provide an intellectual back-up for the main business of securities trading NRI was originally an in house think-tank but since 1970 has developed outside business as well.

The ratio of externally generated research contracts passed 50 per cent in 1979 and is expected to keep on growing rapidly.

Environment

The sort of business which has kept external NRI turnover growing by 20 to 30 per cent in the past few years includes: a long running study on how to improve the urban environment of Tokyo—about Y100m worth of work a year carried out over the past three years for the National Land Agency; studies on a series of port development projects for Japanese prefectural governments; an investigation into the implications for Japan's relations with the Associations of South East Asian Nations of the growth of the Chinese economy—for the Ministry of Foreign Affairs; and numerous feasibility studies on aid projects submitted to the Japanese Government by developing nations. NRI says it does not do research for the Defence Agency.

NRI's private sector business has included research on the Japanese market for half a dozen European car manufacturers and a handful of leading overseas electronics manufacturers; as well as studies on the future of robotisation in Japan for a Japanese private company.

The institute says it erects a "Chinese Wall" between studies conducted for different clients in the same general field—never conducting two closely comparable studies at the same time.

Strict information barriers are maintained within different sectors of the institute. The Tokyo division of NRI, which works mainly for Nomura Securities is not allowed to know details of work being done by the Kamakura division, which specialises in outside contracts.

NRI reckons it has about one-quarter of the researchers and turnover of leading U.S. think-tanks such as Stanford Research Institute—but growth of over 20 per cent a year in turnover means the gap is closing.

Mitsubishi Research Institute, Japan's other leading general purpose think-tank is slightly smaller than NRI in terms of total turnover, but larger if only outside business is compared. Founded in 1970, through the merger of a number of research organisations scattered around the Mitsubishi group, MRI did Y76.5bn-worth of business last year compared with Nomura's Y7.6bn but depended on Mitsubishi group companies for only 10 per cent of this amount. About half the total came from the Japanese Government with the remainder from private and overseas clients.

A big chunk of MRI's business centres on its powerful computer services department which designs software systems for clients all over Japan. Computer services, are said to be the core of MRI's business, in much the same way as corporate analysis and economic forecasting on behalf of Nomura Securities remain the core of Nomura Research Institute's business.

MRI men say their role in doing research for the Central Government is not to compensate for a lack of expertise in the various ministries the institute serves but rather to provide economies of scale. It is admitted that government projects are sometimes underbudgeted and therefore unprofitable but Mitsubishi seldom turns down a contract for this reason.

Information

"We don't expect to make a profit on everything we do—especially if we are working for the first time with a new client." MRI says it tries to provide "exhaustive background information" on the basis of which government departments can draw up policies. It does not aim to make policy recommendations as such—unlike some of the big American think tanks.

An organisation which seems unique to Japan's think-tank industry is the National Institute for Research Advancement (NIRA), a semi-governmental body established in 1974. NIRA works with a Y20bn endowment fund—eventually to increase to Y30bn—of which 65 per cent comes from the central government and the rest from local governments and the private sector. It undertakes some major research projects with its own research staff and commissions private think-tanks to carry out others which are expected to be of general benefit to Japan. Projects are published, unlike those made by private think-tanks in response to commissions from individual clients.

The idea of forming NIRA emerged during the premiership of Mr Kakuei Tanaka (1972-1974) when it was felt Japan had an inadequate reservoir of ideas and basic information with which to frame new policies in a wide variety of fields. Its success in guiding and co-ordinating the private think-tank industry is rated as only moderate although its funding has naturally been welcome. One unusual feature of NIRA's organisation is that it operates with only three permanent research staff. Another 25 or so researchers are seconded for two to three years at a time from various government ministries and agencies.

According to both NIRA and the larger private operators, Japan's think tank industry probably ranks second to that of the U.S. in both numbers of researchers and overall turnover—although the gap between the two is still large. Its role in providing back-up for government policy making—and for the work of the mixed government-private sector committees—is obviously of growing importance, especially in fields such as environment, energy, and the uniquely Japanese question of how to cope with the rapid ageing of the population.

Japanese think-tanks seem to have contributed far less to the making of foreign policy, in part because of a desire to remain neutral on what are seen as sensitive issues. There is no equivalent of the Rand Corporation in Tokyo although Japan's need for such an institution might seem almost as great as that of the U.S.

Demand continues to outrun supply

COMPUTER SOFTWARE

RICHARD HANSON

JAPAN'S computer service industry—consisting mainly of information processing services and software producers—has been viewed as an independent phenomena for just slightly more than a decade. But over the past five years its growth has been roughly twice that of Japanese industry as a whole, averaging 23 to 25 per cent a year. Sales are running at about $2bn a year.

The number of people employed in the industry has been rising by about 10 per cent a year. Precise estimates are difficult to obtain, but it is believed that about 77,000 people now work in the software sector alone. In the next five or six years, the number of technicians is expected to double to about 150,000.

Like many "new" industries in Japan computer service business evolved partly on the initiative of the Ministry of International Trade and Industry (MITI) which in the late 1960s, pinpointed the importance of information processing based on computers. What MITI recognised was that computer hardware is only as good as the software through which it functions.

In 1970 a law was passed containing an outline of the rules to govern the industry, creating among other things, an information promotion agency, to help the industry through an incubation period

The industry consists of a large number—(1,640 in a survey taken three years ago, the latest available) of mostly small companies. But it is dominated by companies which grew directly out of the large computer makers or those companies which are the heaviest users of computers, banks and trading companies.

The top 50 account for about half the business, and more than half of that business involves work for the big five computer makers.

The big computer makers in Japan like Fujitsu, Hitachi and NEC, tend to view the software and data processing companies they create as simple extensions of the parent company.

In terms of sales, the two biggest are Nippon Business Consultant (Hitachi-owned) and Nihon Electric Software (NEC).

The third on the list is an independent software company, Computer Service, whose business consists mainly of dispatching technicians to help companies formulate their own software programmes. It employs about 2,800 people.

The big computer companies normally have several subsidiaries engaged in various aspects of computer service. Nearly all their work comes directly from the parent.

Expansion

The companies which emerged from the user side of the computer business were in many cases divisions within large companies or banks. These initially engaged in in-house work, and then gradually expanded to meet the needs of companies within the same business group, before finally engaging in third party business.

Nomura Computer System, an offshoot of the giant securities house, ranks fourth in the business. Among other top companies are Mitsui Knowledge Industry—a child of the big trading company, which relies on the Mitsui group for about 80 per cent of its business; Tokai Bank—probably the biggest in the financial sector, and Century Research Center. But many of the other banks are also involved as a result of having gone through intensive periods of computerisation themselves.

It is difficult to distinguish within the industry between data processing and software functions. Companies which started as data processing divisions within large companies have tended to do more systems designing and software programme production, while computer maker affiliates divide various functions.

There is a great deal of dual membership in the various industry associations representing data processing and software.

The data processing industry has not developed to any large extent because of independent market forces, as in the U.S. One reason for this can be found in the nature of corporate organisation in Japan. Clerical processing is complicated in Japanese companies, and there is usually no standardised procedure for consigning work to outside companies. This tended to work against independent companies developing.

Another major roadblock to the development of data processing business has been the policy of NTT, the National Telephone and Telegraph monopoly, of restricting the use of communications lines. This has prevented a rapid expansion of on-line services which can be provided by the data processing industry. This means the vast majority of business comes in the form of batch services. MITI is pushing for a revision in the rules governing NTT to open up the market, but it may take another two or three years to implement.

Most of the revenue for the software houses comes directly from the six Japanese mainframe computer makers which develop their own operating systems, support their own customers and sometimes help customers implement their own applications. The mainframers do use their own staff, but in most cases use outside contracts.

Most software houses work primarily for one maker, which provides on average 60 per cent of sales. This makes for a hierarchial structure in the industry with the affiliates of mainframe makers on the top.

On the other hand, computer users, because of their specialised needs, prefer to develop software systems of their own rather than buying "packaged" software. This to a certain extent means that software houses become suppliers of manpower. It also explains why the third largest independent software house is little more than a clearing house for trained personnel.

It seems likely that with the continued spread of computer use, the demand for new software will continually outrun the supply. The software industry to some extent still relies on bringing in Americans for specialised systems development—though companies are usually quiet about this dependence. The software houses themselves will be trying to upgrade their technology and thus lower the soaring costs of software development.

Their role will become increasingly critical as the main use for software services switches from business processing—about 50 per cent in the past—to process control work in manufacturing.

Big computer-makers in Japan, such as Fujitsu, Hitachi and NEC, usually have subsidiaries engaged in various aspects of computer service, but most of their work comes from the parent companies. Above: Fujitsu's Facom M-18011 computer system

COMPUTER SERVICE INDUSTRY SALES

	1976	1977	1978	1979	Average growth
	Yen bn.	Yen bn.	Yen bn.	Yen bn.	
All sales	220.4	265.4	311.9	366.3	
	up	20.4%	17.5%	17.4%	18.5%
Software (only)	63.3	82.1	101.7	125.3	
	up	28.6%	23.9%	23.1%	25.2%
Information services (only)	156.6	183.3	210.2	241	
	up	28.6%	23.9%	23.3%	25.3%
	up	17.1%	14.7%	14.6%	15.5%

Source: Economic Planning Agency.

SHIFT IN PRODUCTION WITHIN INDUSTRIES
Primary, Secondary, Tertiary

	1970		1974		1979	
	Yen bn.	%	Yen bn.	%	Yen bn.	%
All industry	70,510	(100)	127,315	(100)	202,859	
Tertiary	5,084	(7.2)	8,444	(6.6)	11,157	(5.5)
Secondary	32,002	(45.4)	56,737	(44.4)	85,000	(41.9)
Tertiary	33,424	(47.4)	62,634	(49)	106,702	(52.6)
(Service industry within tertiary)	7,033	(9.9)	13,759	(10.8)	26,023	(12.8)

Definitions—primary, meaning agriculture and mining; secondary; manufacturing industry, tertiary; transport and services
Source: Annual report on national income statistics, economic planning agency.

Here and on the following page, Financial Times writers present profiles of some of Japan's leading policy-makers in industry and technology. Reports by Charles Smith, Richard Hanson and Mike Tharp.

Hitachi president's strong emphasis on research

MR KATSUSHIGE MITA is the 56-year-old president of Hitachi — Japan's largest heavy electrical company (though it also goes in for consumer electronics) and, by a comfortable margin, the most intensively research-oriented major enterprise in Japan.

Hitachi spends about Y120bn (£240m) per year on R and D and has had its own research laboratories since before World War Two.

Hitachi's efforts have borne fruit in what are claimed to be the world's largest and fastest computers, as well as in areas such as industrial robots, and Very Large Scale integrated circuits (VLSIs).

Yet Mr Mita admits that IBM almost certainly spends three times as much on research as Hitachi — "The reason why we can get away with less is that we are still pursuing the Americans in basic technology," he says.

Being in the number two position makes it easy for Hitachi to see what has been successful in the U.S. and to organise its own R and D work accordingly.

"If we ever become front runners in advanced technology we will have to spend far more on research than we are doing at present," he adds.

The U.S. leads on the frontiers of electronics technology, says Mr Mita, is largely due to the fact that it spends heavily on aerospace and defence whereas almost all Japanese research is for civil purposes.

Mr Mita admits that some of the technology that has been developed in Japan for civilian uses could turn out to have defence applications, but he believes that the scope for this kind of "reverse spin-off" is quite limited. Meanwhile, he seems happy with the present state of affairs (although Hitachi did establish a special group within the company to promote weapons development during 1980).

Japan's position as "runner up" to the U.S. companies in basic research has not prevented Hitachi from establishing its own areas of special strength. Only one of these is the company's involvement in both integrated circuits (IC) and consumer electronics and heavy electrical goods, whereas comparable American manufacturers are not, for the most part, IC manufacturers. Mr Mita considers it highly significant that General Electric of the U.S. decided to return to IC manufacture last year after staying out of the area for almost a decade.

Having an involvement in both equipment manufacturing and integrated circuits has enabled Hitachi to gain a lead in the important but often neglected field of "application technology." Mr Mita says that one of Hitachi's main priorities at present is to redesign conventional products so as to make maximum use of ICs.

"An example is our motor components division where we are now building ICs into every day products such as carburettors, starters and generators," he adds.

The development of "power ICs" for use in electric motors is another Hitachi speciality which Mr Mita says big U.S. manufacturers, such as Texas Instruments, have tended to neglect.

Although not particularly young by the standards of Western business executives, Mr Mita is one of the new generation of scientifically qualified businessmen who have taken over the leadership of major Japanese electrical and electronics companies during the past year. He is 13 years younger than the former Hitachi President, Mr Hirokichi Yoshiyama (who moved to the non-executive post of chairman, at the end of June), but considers there is nothing particularly odd about the age gap with his predecessor.

As to being an engineer (rather than a lawyer or finance specialist), Mr Mita says that Hitachi has been run by scientists since its foundation 70 years ago and depends on science graduates for 90 per cent of its annual intake of trainee executives.

Engineering graduates, he admits, come in two types: the stickler for detail who picks the rice out of the corners of a lunch box" (to quote an old Japanese proverb) and the generalist. To prove that he is generalist, Mr Mita recalls that he originally wanted to join a trading company rather than a technically orientated manufacturer like Hitachi. His teachers dissuaded him from doing so by pointing out that the U.S. Occupation Authorities' post-war "dispersion policies" made career prospects in the old established Japanese trading companies distinctly uncertain.

Mr Katsushige Mita

Mr Mita sees his role at Hitachi as being that of the ship's captain whose job it is to see storms on the horizon and adjust course accordingly. The president cannot be expected to foresee events such as political crises or oil embargoes, he says, but he should be able to identify the broader trends that are likely to affect his company.

"In our case, the problems that demand attention are energy-saving and international trade relations. We have to learn to live in the world—which, in the case of a company like Hitachi, means investing in overseas production as well as exporting from Japan.

Mr Mita's emphasis on investment could mean that Hitachi will become a considerably more visible presence in the West in the next few years. But the company will not depart from its existing strategy of establishing pilot manufacturing projects in foreign countries and then expanding them if they seem successful.

"The Americans invest a huge amount overseas at one go. That approach is not for us," says Mr Mita.

Motivator in area of advanced technology

THE Agency of Industrial Science and Technology (AIST) was created in 1948 out of a dozen research institutes attached to what is now the Ministry of International Trade and Industry.

The idea—one which still has not caught on in the West—was that Government can help private industry tackle basic problems of mining and industrial technology, and should carry on related R&D work which the private sector would be disinclined, or unable, to pursue on its own.

The idea, as Western companies competing with Japan have found out, worked to a remarkable degree.

According to AIST's Director General, Dr Seiichi Ishizaka, its purpose, as an Agency within MITI, remains unchanged. If anything the Agency is more involved than ever in the most critical areas of research in Japan. The list includes new energy sources (Japan's Sunshine Project), energy conservation (the Moonlight Project), the search for new materials, advanced electronics and biotechnology. It has under its wing 16 research institutes and national laboratories—most now concentrated in a new research town, Tsukuba, 60km north east of Tokyo.

It is responsible for setting Japan's industrial standards. A part of its Y109bn ($500m) annual budget—a tenth of all the money the Government spends on R and D)—is used to subsidise R and D projects by private industry, either individual or collective, Sony Corporation's work on its Trinitron colour television was partly funded in this manner.

Dr Ishizaka spent most of his career in the Agency's National Chemical Laboratories — after being recruited while still in university for war research into producing magnesium. In the early days of AIST, the job was primarily to dish out money on projects of urgent national concern.

"It is unthinkable how low the level of Japanese technology was two decades ago," he says. In the late 1950s, when assigned as Science Attaché to Washington, Japanese steel makers were unable to produce thin plate steel for Japanese car makers. His work in the U.S. consisted mainly of promoting Japanese visits to observe American technology and study in U.S. universities.

Japanese high technology in the first decade or so after the war consisted almost entirely of technology developed during the war, according to Ishizaka. Japan's know how in shipbuilding made it the world's largest shipbuilder. The unfortunate lack of radar technology made it necessary for Japan's military to concentrate on optics. The outcome was the camera industry. The third area was electronics.

Dr Seiichi Ishizaka

Ishizaka still doubts whether new "home grown" technology has taken off. "Manufacturing and processing technology is all we really have, the rest is imported," he says. But he thinks that the turning point may have been reached.

The signs of maturity, and greater confidence, in Japanese technology abound in the success of such projects as the one which produced Japan's VLSI technology, which came under MITI's direct control. But Ishizaka is quick to point out that while Japan can produce the most sophisticated memory chips for computers, it still lags far behind in microprocessors.

Part of the problem Japan still faces is that it takes what Ishizaka describes as a "cost effective" approach to research, rather than a "performance oriented" strategy as in the West. In other words, Japan tries to use limited funds to develop, or improve on certain narrow areas of technology.

The head of a huge monopoly

HISASHI SHINTO became president of Japan's huge telecommunications monopoly, Nippon Telegraph and Telephone, in January this year after a long career as a shipbuilder. He had been president of Ishikawajima Harima Heavy Industries for most of the preceding decade.

Moving from IHI to NTT meant a switch from the biggest machinery Japan produces to the smallest, from the private sector to a public corporation and from manufacturing to services, but Mr Shinto was not dismayed.

Although telecommunications sounds a far cry from giant tankers the gap is not so great as might appear, he says. The reason is that electronic devices are now incorporated in practically every piece of heavy machinery produced in Japan.

"No-one would buy a blast furnace any longer without a computerised control system nor would any major Japanese shipbuilder turn out a bulk carrier that could not be operated without a man in the engine room at night. I learned about such things at IHI so I am not as far out of touch as you might think with the technology we use at NTT," he says.

Despite his relaxed attitude to picking up telecommunications technology at the age of 71, Mr Shinto sees his job at NTT as a considerable challenge. For most of the 30 years since it was set up under the U.S. occupation authorities NTT has concentrated on meeting the massive Japanese demand for conventional telephone services. Mr Shinto says, however, that this is now reaching saturation point. What is emerging instead is the need to convert the NTT network into a data processing system.

"We have to be able to accept input from computers, facsimile and other devices, he says. "To do so is not difficult from a technological point of view, but we face big difficulties in forecasting demand."

Mr Shinto also worries that because NTT is such a vast organisation — with 330,000 employees and annual turnover in the range of Y4,000bn (£9bn) —it may simply not be able to organise itself to change course as quickly as is necessary. No one has yet come up with detailed proposals on how to make NTT less unwieldy and more responsive to the needs of a new age, but Mr Shinto seems to feel that something may need to be done.

The other challenge facing Mr Shinto involves a break with the old "family system," under which NTT carried out research and development in partnership with a short list of Japanese companies. A new system will probably involve international R and D relationships. The liberalisation of procurement by Japanese public corporations which was agreed upon last year means that NTT will now be purchasing at least some of its advanced telecommunications equipment from abroad—including equipment that has to be specially designed and not simply bought off the shelf.

Mr Hisashi Shinto

NTT engineers will thus find themselves working closely with foreign scientists and technicians on selected development projects, although initially the foreigners in question will all be Americans.

British or other European companies could ultimately be allowed to join in NTT's joint research programmes if the governments of the countries concerned sign "umbrella" agreements with the Japanese Government providing for mutual liberalisation of procurement.

NTT's last president, Mr Tokuji Akikusa, initially opposed procurement liberalisation, rather strongly remarking (in a phrase which quickly became famous) that the corporation might be able to see its way to buying mops and telegraph poles from foreign suppliers. Mr Akikusa came round to the idea of liberalisation before his retirement, however, and Mr Shinto has welcomed the idea from the start. He would be particularly glad, he says, to see the UK enter into an agreement similar to the one Japan now has with the U.S. He has held preliminary talks on this subject with a British Minister—Mr Kenneth Baker from the Department of Industry.

Mr Shinto's openness to the idea of working with foreign technicians, and of eventually buying foreign telecommunications equipment, may reflect his own positive experiences working for an American company for 10 years after World War II.

Key man in industrial policy

SEVERAL YEARS ago the title of the most important part of Japan's Ministry of International Trade and Industry (MITI) was changed. The Heavy Industries Bureau became the Machinery and Information Industries Bureau; the change foreshadowed a shift of major importance in Japan's industrial policy.

The man who has shepherded both the bureau and the policy through some of its most formative—and difficult—years is Mr Shohei Kurihara, the 54-year-old director general of the bureau. Since he joined MITI after graduating in law from Tokyo University Mr Kurihara has worked in every crowded and paper-strewn MITI office except the patent agency.

Clearly, however, the past few years in his present post have been the most challenging and rewarding for him. His seventh-floor office, more spacious and quiet than those where he previously toiled, has been the clearing house for Japan's entry into the Information Age.

"The Information Revolution has spread so rapidly that it is now as important as the Industrial Revolution two centuries ago," he says. "The information industry saves energy and material and is free from pollution, so it will be the key industry in the industrial structure of Japan."

Mr Shohei Kurihara

As is well known by those doing business with Japan, MITI's basic policy in the decades after World War II was to promote and subsidise various Japanese industries until they reached a stage of international competitiveness. In the 1950s and early 1960s MITI pinpointed for support and protection such diverse fields as black and white television, machine tools and refineries. Later in the Sixties and into the 1970s, the Ministry's mantle covered colour television, cars, chemicals and industrial plants.

From the mid-1970s until recently, the focus moved to what the Japanese term knowledge-intensive industries, a convenient if vague designation that included integrated circuits, sophisticated medical equipment, computers, precision tools and many other advanced products.

Now MITI's spotlight has swung to the upper rungs of the industrial ladder. "The information industries, aircraft and facilities for nuclear power will become the main target for our support," says Mr Kurihara. "Looking back at our policy, we think it was good to stop subsidies when the industry concerned had grown up and to leave it to depend on the vitality of private entrepreneurs."

Ten years ago, when MITI was first beginning to support Japan's information industries, they trailed far behind giant U.S. companies like IBM and other European competitors.

MITI's policy then consisted of supporting the development of advanced technology among Japanese companies while setting import quotas on foreign competitors. Five years ago the Ministry abandoned this two-pronged approach. "Now," says Mr. Kurihara, "our current policy is to support only the development of high technology in the information industries. And we discuss with our businessmen what guidelines the information society and industries should have in the future."

Despite the great strides by Japanese companies in elevating their global competitiveness in the information field, Mr. Kurihara believes Japan still lags behind IBM overall in the marketplace. "Japanese manufacturers' share of the world market is about one-tenth that of IBM's," he says, "so their capability in technological development and management is far behind IBM."

That assessment, whether mere modesty or a realistic appraisal of the present situation, suggests further intensification of MITI's efforts to support the private sector—but, as Mr. Kurihara stresses, "only for basic research, not for applied research." In addition to the formidable hurdle of American and West European competition, MITI's activities will be slowed by severe budget constraints imposed by its only bureaucratic rival, the Ministry of Finance. "This will delay not only the information industries but also aircraft and space," he says. "We are worried about the delay."

One of a new generation of scientist-managers

The silver-haired President of Nippon Electric Company (NEC), Mr Tadahiro Sekimoto, made his mark in international telecommunications in the mid-1960s with a revo*lutionary breakthrough in* digital satellite communications. At the time he was assigned to the world-wide, *U.S.-based satellite communi*cations organisation, Comsat.

At 54, and despite his fatherly appearance, Mr Sekimoto is one of the youngest of the "new generation" of scientist/managers rising to the top of Japan's biggest high-technology companies. He began his career after graduating from Tokyo University in 1948 in physics (though most of his subsequent career has leaned towards engineering), and was named President last year.

Mr Sekimoto's zeal for new technology is reflected clearly in NEC's achievements as one *of the world's leading com*munications/computer companies. It ranks in the top five in telecommunications (No. one in satellite communications, especially ground stations), No. two in production of semiconductors; and No. one in the new boom in personal computers.

Mr Sekimoto's favourite topic is the need for integrating computers and communication ("C and C") has become, under Mr Sekimoto, NEC's slogan). Such integration is crucial, he says, to give modern managers the ability to make "just in time" decisions. "Companies have to process information on a global basis," he adds.

NEC apparently practices what it preaches. Within the com*pany top level decisions are* made in a "decision room" plugged into an inhouse communications and information *system linking its far-flung* operations. (NEC has sold a number of these command rooms, including one to the *military authorities of another* country friendly to Japan.) At management's command are 52 general purpose computer systems, 61 word processors and 500 personal computers.

When Mr Sekimoto was seconded to Comsat in 1965 to become head of the depart-

Mr Tadahiro Sekimoto

ment engaged in R and D on "pulse code modulation" satellite communications he estimates that Japan was just behind the U.S. in communications technology, though a wide gap existed in missile and satellite technology. Now he feels that the U.S. may be ahead in some areas (especially those related to defence), although Japan has pulled even generally, and is ahead in terms of product reliability.

One of NEC's basic strengths in the critical area of high-frequency telecommunications is that it produces highly advanced microchips on its own. Mr Sekimoto, however, is less confident about Japan's ability to take the next step forward in technology.

"From now on Japan's innovative capabilities will be tested," he says.

At the root of his worries that the next generation of technology again will be reached by Americans first (whatever it turns out to be), are two factors. The first has to do with money. NEC spends about 6 per cent of its sales on R and D (around $245m a year), or a little more if extra research involved in defence work is added. But the effort is still far below that of a company like IBM.

Mr Sekimoto estimates that from now on Japan will have to spend about 10 times what it has on past projects in order to achieve similar results, simply because moving forward *means a jump* into the unknown.

The second factor relates to the fact that part of Japan's *success in the past has been* due to keeping track of where new "information" breakthroughs were being made in the West. This allowed Japanese companies to concentrate their resources narrowly on specific goals. Though the NEC chief is perhaps the exception to the rule, Japanese companies would probably prefer to rely *on the "cheap" alternative of* remaining behind the cutting edge.

Mr Sekimoto gives the impres*sion of a man who might* decide to accept the challenge (and risk) of pursuing new technology, especially if the *Japanese Government offers* more support. Engineers, perhaps, are more at ease than other managers in making decisions on technology.

"As far as basic fields are concerned the U.S. is ahead today. But about tomorrow, I don't know," he says with a gleam in his eye.

Dr Leo Esaki

Inventor of world repute

THE JAPANESE are famous for improving on other people's inventions but not for inventing things themselves. One Japanese scientist who did invent something—but then promptly left for the "more congenial" research environment of the U.S.—is Dr Leo Esaki.

At the age of 32, while working as chief physicist for Sony Corporation, Dr. Esaki discovered the "tunnelling phenomenon" in semi-conductors and invented the Esaki diode. His discovery created a sensation in American scientific circles and resulted in a flood of invitations to Dr Esaki to pursue his researches in the *U.S. instead of Japan.* He accepted one of these (with IBM) and has for the last two decades been watching the *increasingly successful efforts* of his native country to compete with his adopted country in semi-conductor technology—although Esaki insists that "Japan is still behind on basic" research."

Esaki belongs to the war-time crop of outstanding Japanese scientists whose careers were moulded by their country's defeat and who probably have few equivalents in the present generation. He graduated from Tokyo University in 1947 as a specialist in nuclear physics but soon found that the U.S. occupation authorities were not anxious to encourage Japanese efforts in his chosen field. The result was a switch to solid state physics and a job with a small (and since bankrupted) Kobe company which was producing vacuum tubes.

While working in Kobe, Esaki used to come up to Tokyo from time to time to read scientific magazines at the U.S. Government information centre near Hibiya Park. It was in one of these that he learned of the invention of something that was to transform his career (as well as Japan's post-war electronic *industry)—the transistor.*

"Reading about the transistor shifted the direction of my research interests and helped to turn me into a semiconductor man," Esaki recalls. It also led to trouble with the managers of the Kobe company (who only wanted to go on making vacuum tubes). The result was that Esaki moved permanently to Tokyo and became a researcher with Tokyo Tsushin Kogyo, the small and at that time almost completely unknown electronics concern which was shortly to blossom out as "Sony."

There were 500 employees at Tokyo Tsushin Kogyo when Esaki joined in 1956 but the research department was small and the new recruit was soon promoted to be "Chief Physicist." Once in that position Esaki set about choosing a research project which would both earn money for his employers and—if possible—win him a PhD from Tokyo University. The tunnelling phenomenon in semiconductors—only vaguely understood before Esaki got to work on it—provided him with the vehicle he needed.

It led not only to the PhD and to a career switch to the U.S. but 15 years later to the award of Nobel Prize for Physics (one of three Nobel Prizes won by Japanese scientists since World War II). Small wonder, therefore, that Esaki says that "it's important to choose the right subject when you are doing scientific research."

Since 1960, when he moved to New York to take advantage of the "richer" researcher opportunities in the U.S., Esaki has been working on the frontiers of semi-conductor technology (although his job with IBM prevents him from going into too many details).

The Japanese, says Esaki, are brilliant "contrivers" but poor originators. They must, however, become originators if a stable relationship is to be developed with the advanced industrial countries on which Japan depends as a market for its products and as a source of original technology. Esaki believes one of the keys to this problem is to start an education institution which would encourage young Japanese scientists in their 30s and 40s to do genuinely original research (not to work together in groups).

He proposed the formation of a "National Academy of Engineering" in a recent interview with Prime Minister Suzuki but admits that many problems, both political and financial, would have to be settled before such an institution could start to function.

Top man in many research projects

PROFESSOR *Shoji Tanaka of* Tokyo University's Department of Applied Physics is part of the interface between the *academic world and the worlds* of government and business. As such he has been involved in the birth of many of the re*search projects which have* helped put Japan's electronics industry on the map.

"I was just a researcher *until ten years ago,"* says Tanaka "but at that time I was invited to become chairman of a committee on electronic *materials which was being* sponsored by the Ministry of ustry (MITI). This put me in regular touch with MITI *bureaucrats and made it pos*sible for me to put forward various other proposals for research. I suggested many times *that we should start a joint* project for developing VLSIs."

The VLSI (very large-scale integrated circuits) research project *did* ultimately get off the ground and in four years (from 1976 to 1980) achieved results which did much to close the gap between Japan and the U.S. on the frontiers of integrated circuit technology.

Tanaka has been chairman of numerous other research committees since the original on *electronics materials. One rea*son why he feels at home on the "interface" with MITI is that several senior bureaucrats *were at school with him.* "The old First National High School from which I graduated in 1947 had a dormitory system which *enabled the students to get to* know each other well. One of my fellow students was Shohei Kuribara [the director general *of MITI's Machinery and* Information Industries Bureau which has the job of launching and overseeing many key re*search products.]*

Prof. Tanaka himself graduated in applied mathematics from Tokyo University in 1950, *but then decided to switch to* post-graduate studies in physics, because there were not too many jobs in industry for mathematicians. He became a semiconductor specialist in the early fifties and enlarged his expertise (as well as his English) during a two-year spell in the graduate school of Purdue University from 1955 onwards.

Tanaka says that the next two decades will be the age of diffusion of electronics into all fields of life (at least so far as Japan is concerned). He thinks the electronics industry will be the only major industry to show *rapid growth during this period* —or rather that growth in other industries (such as chemicals) will be a "spin-off" from the electronics industry.

The diffusion of electronics into the home and into almost every branch of conventional in*dustry will sweep Japan into a* "post-industrial era" in which productivity will grow enormously and the number of *workers actually required for* production may become quite small. All this will create problems for Japanese society—*one of the major being to* achieve a "soft landing" in the post-industrial era.

Looking at the differences *between Japan and the U.S.* with regard to electronics Professor Tanaka says that every nation has a "given quantity" *of intellectual power but that* this is not always distributed evenly. "The Americans have concentrated their intellectual *resources on defence, space and* electronics." In Japan our bright students have gone uniformly into a number of *major industries including* motors and steel as well as electronics. One result of the uniform distribution of *engineering talent in Japan,* says Tanaka, is that the country's standards of precision for normal industrial components are almost as high as U.S. military specifications.

Professors like himself have a duty to promote an even distribution of engineering talent, and to keep in touch with their former students once they have entered industry, says Tanaka. Fortunately, the ratio of teachers to students in Tokyo University's engineering faculty is high enough to make this possible. "We have 200 professors in the engineering faculty teaching 1,000 new students a year. In the applied physics department we have 11 full professors, 11 assistant professors, four lecturers and 25 assistant lecturers."

Like most of his colleagues and friends Tanaka *admits that* Japan is still behind the U.S. in basic research, but one wonders how long this will last—or how much a gap in basic research will matter given the intense activity under way in Japan in applied research. "MITI," says Tanaka, "is now working on ways to use optical fibre communications technology in the steel industry and in ships. After that we may start work on optical computers. We don't really know what they are yet but we are going to find out."

Professor Shoji Tanaka

Mr Takuma Yamamoto

Fujitsu's new president

Mr Takuma Yamamoto strikes one as having a rare amount of humility for a man whose company can now claim to be "in competition" with IBM in the front rank of the Information Revolution. At the rather young—for Japan—age of 56 he moves into the president's slot this year at *Fujitsu, Japan's biggest com*puter maker.

The humility (perhaps partly a result of the humbling experience of having been assigned to a suicide "kamikaze" squad as a pilot just 10 days before the war ended) is best illustrated by his view of Japan's technological capabilities. "Japan can only follow Western science," he says, because Japanese companies lack the "dynamism and creativity" of U.S. companies.

Fujitsu in fact has considerable reason to be proud of its accomplishments in technology. Its latest breakthrough (albeit using an idea which originated in the U.S.) was to produce a high speed *HEMT, or high electron* mobility transistor, microchip.

In computer technology itself, Fujitsu's models are *equivalent to IBM. As Mr* Yamamoto explains, Fujitsu embarked on its campaign to become a "direct competitor" of IBM five years ago by building IBM-compatible machines. Now it not only competes with the American giant but can claim to have outsold IBM's local subsidiary for each of the past two years.

Mr Yamamoto, like several of his "new generation" colleagues in other high technology companies, is a graduate of Tokyo University (1949) *with a degree in engineering.* As an engineer he worked on Fujitsu's first computer project in the early 1950's.

He recalls that Fujitsu developed its first computer with high hopes of selling it to the fast-growing Tokyo Stock Exchange. A U.S. competitor won the contract, but Fujitsu was at least assured that it could indeed build *computers (the first one was* finally sold to the Ministry of Education). The Government took steps thereafter to *nurture Japan's computer* industry to its present position as No. 2 in the world.

As an engineer, Mr Yamamoto believes that Japan's greatest strength is working to "fine and severe" standards to assure that product quality is high. But creativity in Japan, he says, is stifled by its social and educational systems, which tend to produce engineers who take the safest "no risk" approach to their work.

The gap between the U.S. and Japan in high technology has narrowed, but any sudden breakthroughs in America would again widen the gap dramatically, he says.

Fujitsu spends the equivalent of 10 per cent of its sales on R and D, far less than IBM. Mr Yamamoto feels in any case that creativity is not so much a question of money as having the right "atmosphere"—something which Japanese management must strive to establish.

Pointing the way to better adaptability

JAPAN IS better equipped to enter the information age than many Western societies according to Dr Michio Nagai, the philosophy professor turned editorial writer who did a two-year stint as Minister of Education in 1975/76. Dr Nagai says that one of the consequences of the spread of computers and advanced telecommunications technology in the West has been to diminish person-to-person communication and impose an excessive strain on the individual as the basic unit of society. He thinks Japan may be able to avoid this social "atomisation" by virtue of its cohesive approach to the adoption of new technology.

A striking instance of this approach was the way Dr Nagai's own newspaper, the Asahi Shimbun, handled the computerisation of its production last year. The computers replaced 900 jobs at the Asahi but no one was dismissed. About 40 former production workers passed essay tests and became reporters. All the others were retrained for non-editorial jobs such as guardmen, drivers and others.

Apart from specific examples of "constructive" rather than "destructive" adaptation to new communications technology *Nagai cites Japan's basic* appetite for information as being a promising sign of its adaptability to a new age. He *notes that Japanese newspaper* subscribers number 650 people out of every 1,000 population (easily the highest ratio for any country in the world, although a European country, Sweden, ranks second).

Dr Nagai also says that *Japanese newspapers see their* role as being that of mass education—rather than mere entertainment. Japan lacks quality newspapers in the sense that the term is normally used in Britain but boasts high circulation newspapers with a dis*tinctly more serious approach* to life than the British tabloids. Another distinctive feature of the Japanese press is that even regional and local newspapers devote 15 to 20 per cent of their space to foreign news.

Pursuing his theme of adaptability to the Information Revolution Dr. Nagai says there is less of a rift between elite and non-elite cultural groups and between the scientific and literary "streams" in Japan than in Britain. "Nobel Prize winners watch TV in Japan just like everyone else" (which is saying quite something in a country where average daily TV watching time is three hours).

As far as receptivity to new scientific developments is concerned Dr. Nagai says it took Japan 10 years to accept the correctness of the Copernican theory of the universe whereas Europe had argued the pros and cons for a century. It is hardly suprising in view of this tradi*tion of absorbing and adapting* to (if not originating) new scientific ideas that Japan now has more computers per head of *population than any other* country in the world.

Despite his pride in Japan's

Dr Michio Nagai

ability to move with the times Dr. Nagai is *not* especially proud of the current standards of Japanese higher education. "Our school system is excellent at the lower and middle levels but the quality declines as you get nearer the top. One indication of this is that we have produced no new Nobel scientists out of our post-war crop of university graduates, even though we now have a higher *education population of around* 3m people. Before the war with about 100,000 people in higher education we educated three *future Nobel Prize winners."*

Dr. Nagai did his best as Education Minister to build creativity into the Japanese education system by setting up inter-university institutes in special fields such as life sciences and plasma research and by inviting a steady stream of top scientists from other countries to teach in Japan.

Hugh O'Shaughnessy, recently in Buenos Aires, looks at the reasons for the dramatic slide in the value of the peso

Argentina's rough ride into the unknown

THE ARGENTINE switchback is heading downwards again. The value of the peso has been dropping by the hour and at around 2,800 to the dollar on the free market it retains only about 25 per cent of the value it commanded at the beginning of this year when it stood at 2,000 to the dollar.

There is a very real possibility of a return to the hyper-inflation of five years ago. Bankruptcies, running at three times the rate of last year are now so endemic as to be shaking the foundations of the Argentine economic and banking structure. Some 12m people—about 40 per cent of the workforce—are unemployed, working for a few hours a week or engaged in economically insignificant activities. About two dozen of the country's medium and smaller banks are in difficulties, according to reliable financial sources.

Foreign banks are worrying about their loans. Foreign companies with large operations here—they include most of the world's big names from Ford to Lloyd's Bank, from Fiat to BAT Industries—are also worried about the present slump. And they fear that a new wave of nationalism and xenophobia could come in the wake of Argentine economic collapse.

No one is really sure how much further the switchback has to go or whose hands are on the controls. The one consolation is the sheer potential of the country which is the size of Western Europe and within an ace of being self-sufficient in oil and gas. It is also a major food exporter and has a highly educated workforce capable of growing its own crop of Nobel prizewinners.

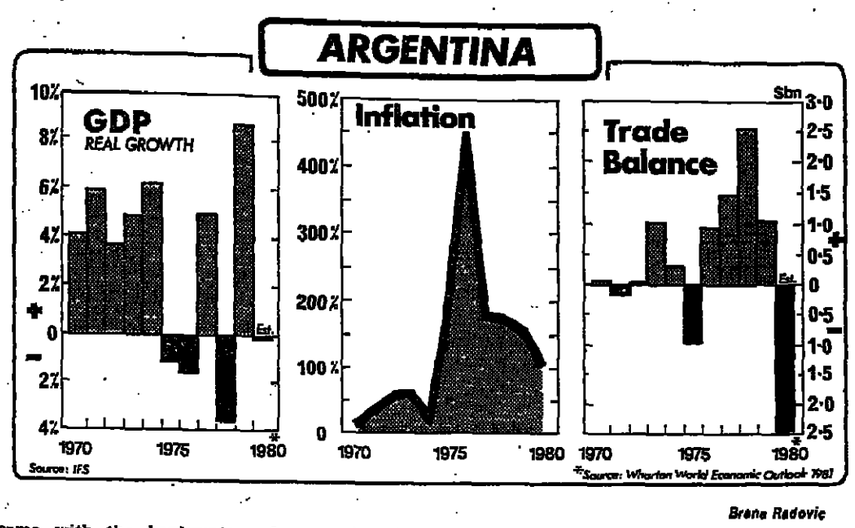
The roots of the present problem go back some way. In 1976 President Maria Estela "Isabelita" Peron, widow of the late General Peron, was attempting to grapple with little success with a political and economic situation which had gone from the chaotic to the disastrous. In the first months of 1976 inflation crept towards 60 per cent a month as profligate spending pushed the budget deficit towards 25 per cent of the gross national product and economic activity of any sort became very difficult.

In March of that year the armed forces stepped in. General Jorge Videla seized the presidency and bundled "Isabelita" Peron off to house arrest. Congress was closed, the Left and the political centre were repressed with extreme ruthlessness and a start made on reimposing conservative financial orthodoxy.

General Videla appointed as his Minister of Economy Dr Jose Alfredo Martinez de Hoz, who instituted a régime of austerity with high interest rates, the destruction of the high tariff walls behind which Argentine industry had grown and sometimes prospered over the previous decades and particular concessions to the agricultural sector.

Foreign business confidence immediately revived and on a tour of Europe in late 1976 Dr Martinez de Hoz was rapturously received by business audiences. From then on, almost until March 29 this year when he followed General Videla into retirement Dr Martinez de Hoz —dubbed by his friends "The Wizard de Hoz"—chalked up many successes.

But as the Videla - Martinez de Hoz partnership moved into its fifth year, however, cracks began to appear. Domestic industry was forced into grave crisis by the over-valued peso and the uncomfortably low tariff wall. GNP, which in 1979 rose by more than 8 per cent, was stagnant in 1980. The signs of this year's financial crisis



Brena Radovic

came with the bankruptcy of the Banco de Intercambio Regional, one of the fastest-growing financial institutions in a competitive market, and of Sasetru, a billion-dollar industrial and financial conglomerate.

The impending departure of the General and the Doctor raised worries about who were going to succeed them. These worries were not allayed when the military decided that the new president to succeed the puritanical Videla would be the easy-going General Roberto Viola or when General Viola chose Dr Lorenzo Sigaut as his Economy Minister. Many observers saw Sigaut as something of a political lightweight. The Right was distrustful of Viola's commitment to push ahead with plans for the eventual return of the country to civilian government.

The incoming team who took over on March 29 had to wrestle with inflation which, at more than 80 per cent a year, was nowhere near the low levels which Dr Martinez de Hoz had pledged himself to achieve. A large part of the inflation was to be blamed on continuing high levels of Government spending, notably bulked by the armed forces' demands for new arms for possible hostilities with Chile. Informed guesses about the cost of arms purchases in the Videla period range from $5bn to $11bn.

Over the past six years, all this has left local industry between the devil and the deep blue sea. Saab-Scania with a modern plant in the north of the country saw its local production costs so inflated by the strong peso in 1980 that it was producing vehicle chassis locally at three times the price they could be imported. Production thus fell and men were laid off.

In the tractor industry it was the same story. In 1977, for instance, Deutz, Fiat, John Deere and Massey Ferguson produced between them 25,845 units, of which nearly 2,000 were exported. Last year the same four companies turned out no more than 3,658 units, of which 800 were exported. In the first four months of 1981 an industry which has the productive capacity of 30,000 tractors a year managed to build only 279 units.

Foreign idustrial companies could at least import what they could not produce economically in Argentina. Argentine industrialists who did not have such opportunities and who were very often working with less modern plants than the big international companies saw themselves facing ruin. Many, indeed, are all but ruined.

Sr Jacques Kirsch, the president of UIA (Argentine Industrial Union) the local equivalent of the CBI, has for the past week been frantically calling for financial help for his members' factories.

"Argentine industry is in the throes of a very high fever. We needs help in days or, at worst, weeks. We can't survive months of waiting for help," he commented.

He has proposed a plan under which the Government would re-discount half of industry's debts to the banks over 10 years with a seven-year grace period. This would assist firms in difficulties and would remove a great burden of bad debt from the banking sector where one highly-placed financial authority says that some two-dozen of the medium and smaller banks are on the verge of insolvency.

Faced with this, General Viola and Dr Sigaut are in a quandary. They want to help but fear that any sweeping measures would stoke the fire of an inflation which is already running well beyond 100 per cent a year. "The UIA plan, as it stands is a monetary absurdity. We will be helping industry, but not like that," says Dr Sigaut.

The economic team expects the massive devaluation of the peso to lead to an export-led boom which will have the factories humming in a few months' time. They also hope that the credits recently granted to the farm sector will next year bring in a harvest 50 per cent higher than the record crop of 24m tonnes of cereals which is being brought in this year.

Meanwhile, they argue, the low value of the peso will attract new foreign investors to buy assets which were grossly overpriced when the peso was riding high.

"I have a list of foreign companies which are going to invest $300m in Argentina in the course of this month," says Dr Hugo Lamonica, the Under-Secretary of Finance, confidently.

DR SIGAUT

PRESIDENT VIOLA

They fear sweeping measures would stoke inflation

The Government also argues that Argentines will no longer be able to splurge their money on foreign travel as they did under General Videla and that to the contrary, Argentina will once again be drawing in Brazilians and other Latin Americans for cheap holidays and bargain shopping in the shops and boutiques of Buenos Aires.

But prudent observers feel that the upswing will take some time to make itself felt. They doubt that foreign investors are all that eager to put money into Argentina at the moment. Their doubts are borne out by the reluctance of merchant banks and clearing banks in London and other financial centres to recommend Argentina as a good investment prospect.

"We are going a bit cautiously on Argentina at the moment," said one British banker. "We don't see it as a good immediate prospect."

Others doubt whether Argentine industry or the farm sector is sufficiently agile to respond to the new competitive exchange rate and start exporting new lines immediately. Yet others hope that, however promising the agricultural sector may look at the moment, next year's crops are as always subject to the vagaries of the weather.

The older-established foreign companies in Argentina have seen similar economic cataclysms in the past. But they take the long view that there is no alternative to sticking out the present period in the hope that one day the roller-coaster will start climbing again.

Letters to the Editor

Theories which fit the facts

From Mr T. Congdon

Sir,—In his criticism (July 1) of Peter Riddell's Lombard column (June 26), Peter Shore claims that the Treasury has not produced "any supporting evidence" for the proposition that slower money supply growth will reduce inflation. This is incorrect. A Treasury working paper by Simon Wren-Lewis, was published in March. Its central conclusion was that, "generally we could accept the strict monetarist proposition that a 1 per cent change in money would lead to a 1 per cent change in prices in the long run, with the main effect coming after a lag of between six quarters and three years."

The relevant facts are in any case readily available from official publications. Over the 17 years from 1963, when figures were first compiled in their present form, money supply grew at an average annual rate of 11.8 per cent and money gross national product of 12.5 per cent. In the 1960s money supply typically rose by between 6 and 8 per cent a year and inflation was 6 per cent, while in the 1970s the average annual rise in the money supply was 17 to 19 per cent and inflation was 17 per cent.

Mr Shore is, of course, free to believe that the theory that there is a link between money and prices has "no relation to real life." Others may protest that his position demonstrates an eccentric indifference to evidence. He may also think that a more competitive exchange rate will cause output to rise. If by a competitive exchange rate he means a falling pound, some observers—including, perhaps, the monetarists—may note that the pound was falling almost without interruption in the 10 years to 1977 and that the rise in output over that period was disappointingly low.

Mr Shore says that he favours "only those theories which fit the facts." It is a pity he shows not only so weak an understanding of theory, but also so little knowledge of the facts. When Mr Riddell criticises politicians for their "pragmatism," he is surely being rather mild.

Tim Congdon,
L. Messel and Co.
Winchester House,
100, Old Broad Street, EC2.

Jibes against economists

From Mr K. Graves

Sir,—I am reluctant to disagree with Mr Peter Shore (July 1) for whom I have always had a degree of admiration; but people who live in glass houses should not throw stones.

Mr. Shore suggests that Mr Riddell should defend only those theories which fit the facts; but I do not see that Labour Party "concepts" and "beliefs" are any nearer the truth. In any case one need not be a monetarist to believe that abuse of the money supply will lead to trouble. To quote Adam Smith (albeit out of context), "what is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom."

Mr Shore believes that a more competitive exchange rate will cause output to rise, but even allowing for the Labour Party's penchant for devaluations, we could here be in the realm of post hoc ergo propter hoc. Mr Shore well knows that exports, for example, do not depend on price alone. Naturally we must never blame strikes et hoc genus omne. As to increases in Government spending stimulating the economy, it all depends on what the money is spent. Increased output will stimulate investment—but again what investment? We do not want investment for the sake of investment —and if Mr Shore is thinking of jobs, then some forms of investment will destroy jobs—permanently.

I am not myself in favour of too much theorising but I do resent the jibes made against economists, the purity of whose word has been destroyed by party politics. We do not always appreciate the important contribution made by economic theorists with their rigorous analyses. But as Keynes said: "The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."

K. T. H. Graves,
187, Pensby Road,
Heswall, Wirral.

Dealers in securities

From the Chief Executive, Financial Intelligence

Sir,—An analysis of the 1979-1980 financial statements of 250 UK companies and 20 foreign companies, all of which were licensed to deal in securities during 1980, revealed that only 13 at their year end held balances or assets "a/c clients" or "in trust for clients." If the other 257 companies held clients balances, then they were classified as assets of the dealing company, with obvious consequences should any such dealer find itself in difficulties or in liquidation; of those companies which did distinguish between assets of the dealing company and those held in clients' accounts, did not renew their licences in 1981. In the case of the 20 foreign companies operating in the UK as licensed dealers not one of their accounts classified any balances or assets held a/c clients.

There were two companies retaining their Department of Trade licence who had received notices of dissolution from the Registrar of Companies (Department of Trade) because of persistent failure to file accounts and a further six companies with serious audit qualifications, quite apart from a further 10 companies which did not file audit certificates with their accounts as required by law.

It is interesting to note that in June the Department of Trade issued its 1981 listing of Licensed Dealers in Securities; it includes Connaught Latham, Farrington Stead, and Norton Warburg Investment Management as holders of principal's licences.

It is most unlikely that legislation will be introduced in the near future to amend the Prevention of Frauds (Investments) Act and whatever developments may arise through consultative documents, voluntary codes or associations it is unlikely that they will be able to provide real protection to the innocent investor.

There is probably no solution to the problem of an investor's bad luck or folly in choice of investment or investment manager and it is therefore unfortunate that present securities licensing procedures continue to apply when, by general acknowledgement, they have no "teeth" and at best provide only a list of names of "holders or principal's licences" and at worst give official recognition and credibility to some who should not have it.

P. L. Anderson,
49-51 The Avenue, W13

Interest on VAT dues

From Miss B. Pugh

Sir,—Referring to the report by your correspondent, Philip Bassett, on the subject "Pay unit 'needed' in civil service" (June 24), we fully support the stand taken by the National Federation of Self Employed and Small Businesses regarding the interest to be claimed on outstanding VAT repayments.

The small export businesses can no longer sustain the non-receipt of VAT settlements, which are outstanding from February 1981 onwards.

Apart from the urgent necessity of making special arrangements to settle VAT repayments, the government should, in all fairness, pay bank interest on the amounts outstanding at least at a rate equivalent to MLR and perhaps the Government should, if necessary, try to recover this additional expense from the unions.

The present civil servants' strike affecting the VAT repayments should now be treated rather as a serious affair, if the Government cares for the exporting houses to survive.

Miss B. A. M. Pugh,
Sivers Limited.
3, High Street, Slough, Berks.

Pensions and mobility

From the Director of Information, Company Pensions Information Centre

Sir,—Can I please take up just three of the many points raised in your leader of June 25 on "Pensions and mobility."

You claim that pension schemes force early leavers to give them large interest free loans for lengthy periods. But if the pension for an early leaver does not increase between the date of his leaving and retirement it does not follow that all the interest earned on the money is diverted elsewhere. The amount of money paid in by a member (and by his employer, if the employer has started to pay for him) is lower than it would otherwise be because interest will be earned on the money all the way up to retirement before the pension is paid out. Of course the interest earned may turn out to be greater than expected and this extra interest may be needed to offset other factors that are unfavourable (such as increases in pay for other members or the expense of running the fund being higher than expected), but this certainly does not justify the claim that early leavers make interest free loans.

You claim it is time that the pensions industry, among other people, came up with a more comprehensive solution to the problem of the early leaver. From the point of view of the pensions industry there are no technical problems in providing higher pensions for people who change jobs and I am sure that most people working in the pensions industry would be glad to see them get higher pensions. The problem is finding the necessary resources to pay for these higher pensions and that is a problem for employees and employers, since it is they and not the pensions industry who pay for pensions.

You suggest giving employees the right to opt out of company pension schemes and to invest their own contributions in the sort of pension plan available to the self employed. Buying a pension gets more expensive as you grow older so why pay for your pension all by yourself if your employer is willing to share the cost? I think you also overlook the important point that with the sort of pensions plan used by self-employed people you cannot know in advance how your pension will relate to your pay just before retirement. If the object of a pension plan is to ensure that your income after retirement does not fall too far below your income before retirement then a pension scheme linked to final pay is the best way of achieving this. Many people want to improve the position of young people who change jobs but it would surely be a mistake to do this if the price is destroying the security at present given to older people who are less likely to move.

M. J. Brown,
Company Pensions Information Centre.
7 Old Park Lane, W1

Textiles and Brandt

From Mr J. Madeley

Sir,—You report (July 2) that Goverment, industry and unions gave qualified approval at the NEDC council to the Brandt report. Presumably all must, therefore be opposed to the report drawn up for the NEDC joint textile committee that argues for "an effective successor to the present multi fibre arrangement."

By this seems to be meant a more restrictive successor. Yet the present MFA is a highly restrictive agreement that is totally inconsistent with Brandt's recommendation that the south be given greater access to the markets of the north for their manufactured goods.

For the countries of both north and south, the most effective successor to the MFA would be no successor at all, but rather a return to the freer trade in textiles which existed before 1978. It is not textiles from developing countries which are the chief cause of the problems of the British textile industry, but textiles from other industrial countries, especially the U.S., and ironically the introduction of automated technology. It is the latter which is chiefly responsible for job losses.

A tougher MFA would undermine the Brandt report and could have serious consequences for north-south co-operation, and the chances of global economic recovery.

John Madeley.
19, Woodford Close,
Caversham,
Reading, Berks.

Today's Events

GENERAL

UK: Mrs Margaret Thatcher opens Royal Agricultural Show, Kenilworth (to July 10).

National Union of Mineworkers' conference opens, St. Helier, Jersey (to July 10).

Nominations close for the Warrington by-election.

Sainsbury announces £500,000 arts patronage programme.

Mr Michael Foot, Opposition leader, speaks at National Union of Railwaymen's conference, St. Andrews.

Sir Ronald Gardner-Thorpe, Lord Mayor of London, opens International Colloquium on Television, Film and Theatre Lighting, Barbican Conference Centre, EC2.

Covent Garden Mozart Festival opens at the Royal Opera House, WC2 (to July 26).

Church of England General Synod continues, York (to July 7).

Festival of the City of London (to July 18).

London Wine Trade Exhibition, Kensington Exhibition Centre (to July 7).

Overseas: Lord Carrington, Foreign Secretary, in Moscow to urge Soviet agreement to EEC plans for international conference on Afghanistan.

Sir Geoffrey Howe, Chancellor of the Exchequer, presides at EEC Finance Ministers meeting, Brussels.

European Parliament session opens, Strasbourg (to July 10).

Princess Margaret begins six-day visit to Canada.

PARLIAMENTARY BUSINESS

House of Commons: Private Members' debates. Deep Sea Mining (Temporary Provisions) Bill, remaining stages. Merseyside Development Corporation (Vesting of Land) orders.

House of Lords: Betting and Gaming Duties Bill, third reading. Education Bill, committee. European Communities Order.

OFFICIAL STATISTICS

Personal income, expenditure and savings, and company profits for first quarter. Hire purchase and other instalment credit business for May. May final figures of retail sales. Provisional wholesale price index numbers for June.

COMPANY MEETINGS

See Week's Financial Diary on page 21.

COMPANY RESULTS

Final Dividends: Associated Leisure. Eastern Produce Holdings. James Latham, May and Hassell. Mercantile House Holdings. Ropner Holdings. R. W. Toothill.

Wedgwood makes net loss on CCA basis

CURRENT COST figures in the 1980-81 Wedgwood accounts show the group's historic pre-tax profit of £6.06m for the year ended March 28 slashed to an adjusted figure of £584,000. And tax of £2.25m meant there was a net loss of £1.66m on the CCA basis.

However, in his annual statement, Sir Arthur Bryan, the chairman of this bone china and earthenware manufacturer, points out that the current cost accounts, prepared in accordance with SSAP 16, have not been audited since the cost is not considered justifiable.

Sir Arthur adds that "from a management point of view we have all the information we require in our monthly accounting statements to ensure that the full effects of inflation are taken into account in arriving at management decisions, and the current cost statements do not provide our management with any additional useful information."

The auditors, Peat Marwick Mitchell and Co. have again qualified the accounts with respect to the group's failure to comply with the requirements of SSAP 9 in its method of stock valuation.

Had SSAP 9 been adopted, operating profit for the 1980-81 year would have been increased by £552,000 to £9.29m, while the value of inventory stated in the balance sheet would have expanded by £4.79m to £42.32m. But Sir Arthur comments that "we do not believe that a departure from our prudent method of stock valuation would be in anyone's best interest."

Following the 4 per cent rise in 1980-81 profits on sales up 10 per cent to £106.1m, the chairman is anticipating further progress in the current year. He points out that the Royal Wedding has given a little stimulus to the industry and to Wedgwood, in particular, while the fall in the pound against the dollar is also helpful.

Against this, however, he says that the tendency for other countries to follow the high interest path in order to strengthen their currencies is a most disturbing and unsettling factor in international business. In addition, competition, especially in the group's lower to medium priced earthenware divisions, is extremely severe, while the world's supply situation appears to be in surplus.

Sir Arthur reports that Wedgwood's Franciscan factory in California, which made good progress last year, has made a disappointing start in the first quarter. This was due partly to industrial action over wage negotiations and to a falling off in demand for some product lines.

With the dispute there now settled, there is ample confidence in the future to proceed with the first of the major capital improvement schemes planned to set the factory off on a progressively profitable path. Orders have been placed for some modern kilns, which will be installed towards the end of this financial year and should contribute to profit in 1982-83.

As at March 28, 1981, total capital employed had fallen to £56.22m, against £59.31m a year earlier, with shareholders' funds lower at £42.38m (£43.22m). Liquid funds showed a net decrease of £2.15m (£5.52m increase).

Meeting, 34 Wigmore Street, W, July 30, at noon.

Growth for Kayser Bondor

Taxable profits of Courtaulds subsidiary, Kayser Bondor, rose from £1.52m to £1.73m for 1980 and turnover of this manufacturer of hosiery and lingerie, improved from £19.04m to £21.25m.

After lower tax of £8,000 (£75,000) stated earnings per 25p share were ahead by 1.18p to 7.05p. The dividend is hoisted from an equivalent 0.7175p to 7.085p net.

At halfway, pre-tax profits had risen from £664,000 to £769,000.

FT Share Information

The following securities have been added to the Share Information Service:

Energy Resources & Services Inc. (Section: Investment Trusts). Financial Corporation of America (Americans). Gulf Oil Corporation (Americans). Tolux S.A. (Trusts, Finance, Land).

DYNAPAC FORMS UK COMPANY

The Dynapac organisation of Sweden has formed a British sales company, Dynapac (UK). The new company will market the Dynapac ranges of light compaction and concrete equipment which, since 1947, have been distributed in the UK by the BCEL company, Winget.

Dynapac heavy compaction equipment will continue to be distributed in Britain by another BCEL company, Blaw Know, which took over this exclusive agency from Winget in June 1979.

BIDS AND DEALS

Goodkind stakes sold by Pawson directors

Mr Stanley Wootliff, chairman of W. L. Pawson, the clothing group, has sold his remaining shareholding in W. Goodkind and Sons and has resigned as chairman.

His two co-directors who are also on the Pawson board, have also disposed of their holdings and left the board.

Mr. Wootliff has sold 274,950 shares, Mr C. P. Frazer 110,800 and Mr R. Henton 75,000. This aggregates 8.6 per cent of the capital.

Mr F. J. C. Lilley has taken over as chairman. He joined the board in October 1980 after taking a 7 per cent holding in the company.

Mr Wootliff bought his original stake in Goodkind, the fur trading and property group, in July 1979. At that time he purchased a 20 per cent holding at 18p per share.

The shares closed on Friday 3p higher at 47p, reflecting the publication of the group results for the 16 months ended April 30 1981.

These show profits, before tax, of £49,476 (£21,759 for the previous year), turnover of £575,421 (£421,810) and earnings per share of 2.03p (1.3p).

The net asset value amounted to 29.4p (14.5p) and the dividend 0.3p (0.05p).

NORPLAN FURNITURE

A group of institutions has injected £300,000 of new equity capital into Norplan Furniture Holdings. The injection, announced by East Anglian Securities Trust, a Norwich-based merchant banking organisation, is in the form of a subscription for new ordinary shares and new convertible preference shares.

The funds were provided by Brook House Investments, a subsidiary of East Anglian Securities Holdings, Scottish American Investment Company and Castle Finance, part of the Norwich Union Insurance Group. Collectively, they will own approximately 53 per cent of Norplan's enlarged ordinary share capital.

Gresham Trust purchase

Gresham Trust has joined forces with the managers of a small Northampton-based specialist publishing company to buy it from the liquidator for £80,000.

Gresham, the merchant banking arm of Gresham Investment Trust is putting up £40,000 with the balance being provided by Mr Richard Thomas and Mr Alistair Stewart, the managers of Parrish Rogers which went into liquidation earlier this year.

This followed difficulties in overseas trading by its holding company.

The company is forecasting a turnover of £700,000 and profits of £60,000 for 1980. Trading is going to plan with advertising well on target.

The company's annual publications include the Arabian Transport Directory and the Arabian Government and Public Services Directory (priced at £27 and £47 respectively) which have been in issue for two years; and in the UK the company has just published the Fishing Handbook and the Shooting Handbook (at £6 each) and has also just brought out this year the UK Business Relocation Handbook (£15).

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetable.

TODAY

Finals:—Associated Leisure, Eastern Produce, James Latham, May and Hassell, Mercantile House, Ropner Holdings, R. W. Toothill.

FUTURE DATES

Interims:—	
Bank Leumi (UK)	July 27
Gen. Consltd. Invest. Trust	July 15
Meggitt	July 20
Tube Investments	Aug 12
Finals:—	
Distillers	July 16
Haslemere Estates	July 16
Jones Stroud	July 14
Ratners Jewellers	July 13
Rexmore	July 28
Routledge and Kegan Paul	July 8
Utd. British Securities Trust	July 14

Tate & Lyle sells interest in Unitank

Tate and Lyle, has sold its outstanding 50 per cent interest in Unitank of Montreal, Canada to Canadian Pacific of Montreal for C$2.5m in cash.

The consideration was made up of C$800,000 debentures, C$300,000 preference shares at par, and the balance common shares.

Tate and Lyle and Canadian Pacific formed Unitank in 19[illegible] under a joint venture agreement in which each held a 50 per cent interest in the company. As a result of the acquisition, the name Unitank has been changed to Intertank Inc.

WILLIAMSON BUYING REST OF BORELLI

Agreement has been reached between Williamson Tea Holdings and Borelli Tea Holdings for Williamson to acquire the 24.53 per cent of Borelli not already owned.

Williamson owns 209,817 ordinary shares (75.47 per cent) in Borelli and is to acquire the remaining 68,209 shares for 240p per share in cash.

It is proposed to effect the acquisition by means of a Scheme of Arrangement under Section 206 of the Companies Act, 1948.

LK INDUSTRIAL

Caparo Industries, formerly LK Industrial Investments, has announced the sale of its subsidiary, Kirby Dartford, based at Oldbury, West Midlands.

Kirby manufacturers and sells packaging machinery and has been sold to Box Machinery of Rugby for an initial cash consideration of £50,000, which has been received. In addition, deferred consideration of £108,712 is payable by monthly instalments over the next two years.

ANGLO-INDONESIAN CORPORATION

(plantations and engineering group)—Results for 1980 and prospects reported June 9. Shareholders' funds £5.23m (£5.1m); minority interests £643,048 (£625,482); long term loan £620,000 (£342,000); fixed assets £1.95m (£2m); associated company and other investments £2.47m (£2.65m); net current assets £1.76m (£928,531); increase in working capital £1.3m (£247,678 decrease). Meeting, 123 Kennington Road, SE, July 17, noon.

SHARE STAKES

Denbyware—Crown House and its subsidiaries now hold 4,256,542 (99.01 per cent).

Francis Industries — D. M. of 150,000 shares.

Marks and Spencer—Mr J. J. Salisse has sold 75,000 shares and Mr Michael Moses Sacher has sold 231,764.

Maynards—Scottish Amicable Life Assurance Society now holds 265,000 shares (5.4 per cent).

Francis Industries — D. M. Saunders, director, has disposed of 150,000 shares.

Gold and Base Metal Mines—Jantar is now beneficially interested in 383,500 shares (6.22 per cent). The shares previously held by Mr. E. S. Nasser and his associates are included in this holding.

Marks and Spencer—Mr. J. J. Salisse sold 75,000 shares and Mr. Michael Moses Sacher sold 231,764.

Moben Group—London Trust has increased its holding from 6.2 per cent to 6.93 per cent of the capital.

Marshall's Universal—Mr. J. E. Fletcher has sold 40,000 ordinary shares.

St Andrew Trust—Scottish Widows' Fund and Life Assurance Society has sold 265,604 ordinary shares and now holds 531,600 ordinary.

Carr's Milling Industries—Heygate and Sons has purchased 100,000 ordinary shares and now holds 922,500 ordinary (18.45 per cent).

Scottish Ontario Investment Co.—Courtaulds Pensions Common Investment Fund has acquired 73,500 5 per cent preference shares (14.5 per cent).

Second City Properties—Control Securities now holds 10.84 per cent of capital and Labofund AG now holds 7.16 per cent, bringing the combined holding of the two companies to 18 per cent.

Shires Investment Co.—Mr. C. E. Wilkinson is interested in 338,420 ordinary shares (13.5 per cent)—331,820 of these shares are held by Mr Wilkinson jointly with Mr C. N. Quin as trustees. Mr Quin is therefore interested in 13.3 per cent of the ordinary capital.

Unifiex Holdings — Hillsdown Holdings has bought 46,898 ordinary shares.

RESULTS AND ACCOUNTS IN BRIEF

DOWNS SURGICAL (surgical instrument and appliance manufacturer)—Results for year to March 31 1981 reported June 18. Shareholders' funds £7.16m (£6.72m); loans £50,057 (£242,000); net current assets £4.02m (£4.71m) including overdrafts and loans £2.72m (£2.2m); fixed assets £3.2m (£2.21m); pre-tax profit £275,000 (£849,000) reduced to loss of £349,000 (£19,000) by CCA adjustments: decrease in working capital £365,000 (£1.43m increase). Meeting, Selfridge Hotel, W1, July 24, noon.

BURNETT AND HALLAMSHIRE HOLDINGS (mining, oil, property)—Results for the year to March 1981 reported June 26. Shareholders' funds £47.23m (£25.45m); fixed assets £38.24m (£24.83m); net current assets £15.11m (£5.5m), including bank balances and cash £11.59m (£1.94) and bank overdraft £1.13m (nil). CCA accounting reduces historical pre-tax profit £12.46m (£7.32m) to £8.85m. Chairman's emoluments £48.2m (£24.71m). Meeting, Sheffield, July 23, noon.

BRITISH STEAM SPECIALTIES GROUP—Results for year to March 31 1981 reported June 19. Current cost pre-tax profit £669,000 (£2.45m) against historical £1.89m (£3.78m). Group shareholders' funds £12.78m (£12.43m). Fixed assets £5.22m (£4.76m). Total assets £26.15m (£26.53m). Net current assets £8.01m (£8.2m). Bank borrowing increased £0.85m (£1.03m). Meeting, Leicester, July 30, noon.

AMBER INDUSTRIAL HOLDINGS (subsidiary of Caledonian Investments)—Results for year to March 31 1981 reported June 19. Shareholders' funds £1.44m (£1.24m); loan from parent company £537,000 (£824,000); fixed assets £1.78m (£1.72m); net current assets £984,450 (£989,044); increase in liquid funds £242,182 (£184,636 decrease); historic pre-tax profit £102,041 (£534,268) reduced by CCA adjustments to £18,000. Meeting: Cayzer House, St. Mary Axe, EC, July 27, 2.30 pm.

J. BILLAM (cutler and sheet metal engineer)—Results for 1980 and prospects reported May 23. Shareholders' funds £1.38m (£0.93m), fixed assets £457,735 (£429,305), current assets £1.57m (£1.38m) including stocks and work in progress of £741,803 (£818,281), net current assets £892,740 (£868,711). The emoluments of chairman are given as £46,286 (£31,757). Meeting, Sheffield, July 24, at noon.

LONDON AND ASSOCIATED INVESTMENT TRUST—Results for 1980 reported June 26. Investments £853,166 (£944,974), investment properties £1.18m (£1.11m). Current assets £49,606 (£123,487), current liabilities £299,227 (£585,836). Shareholders' funds £1.59m (£0.96m). Chairman says group is in a stronger financial position than at any time during the last few years. Meeting, Clement House, WC, July 24, noon.

STERLING INDUSTRIES (light engineer)—Results for year to March 31 1981 reported June 30. Group shareholders' funds £4.9m (£0.04m). Fixed assets £1.71m (£1.63m). Net current assets £2.95m (£2.4m). Working capital increased £31,299 (£576,972). Chairman says company, which is subsidiary of Cayzer Trust Company, will be hard put to achieve profit equal to last year. Meeting, Cayzer House, EC, July 27, 12.30 pm.

WILKINS AND MITCHELL (manufacturer of Servis domestic appliances and power presses)—Results for year to January 3 1981 reported June 20. Shareholders' funds £3.72m (£6.65m); medium and long term loans £1.83m (£2.03m); fixed assets £6.2m (£7.71m); net current liabilities £2.66m (£1.2m assets); decrease in working capital £1.55m (£3.09m increase). Meeting, Wednesbury, July 30, 3.0 pm.

SPAIN

1981 High	1981 Low		July 3 Price pts
326	251	Banco Bilbao	325
373	280	Banco Central	356
336	229	Banco Exterior	336
311	239	Banco Hispano	301
138	120	Banco Ind. Cat.	122
388	284	Banco Santander	369
227	148	Banco Urquijo	223
356	263	Banco Vizcaya	350
252	204	Banco Zaragoza	238
224	82	Dragados	208
88	45	Espanola Zinc	55
77.7	55.5	Fecsa	70.5
55	22	Gal. Preciados	53.5
84	63.5	Hidrola	79.5
68.7	52	Iberduero	60.2
137	70	Petrolsos	136.5
102	70	Petroliber	102
102	59	Sogefisa	59
87	60	Telefonica	85.5
73.2	60	Union Elect.	72.5

THE TRING HALL U.S.M. INDEX
126.8 (−0.3)
at close of business 3/7/81
BASE DATE 10/11/80 100

CORAL INDEX
Close: 544-549 (−0.3)

CREDITS

BY PETER MONTAGNON

Italians pay the price of excess

THE EUROCREDIT market seems increasingly determined to exact more generous terms from Italian public sector borrowers as the price of satisfying their insatiable demands for finance.

At the end of last week Dillon Read had still failed to complete the underwriting of a $500m loan it is trying to arrange for Italian Railways with a margin of ½ per cent over Libor or ⅛ over U.S. Prime.

Meanwhile another loan had been launched on higher margins for a different public sector borrower. Cofiri, a financing arm of the IRI industrial holding group, is raising $150m, over seven years with a margin of ½ per cent for the first four rising to ⅝ per cent thereafter, through Arab Banking Corporation.

Direct comparison between individual Italian borrowers is difficult because their inherent appeal to the market varies, but there is no doubt that the terms of the Corfiri credit are a far cry from last winter's ambitious attempt by Cassa per il Mezzogiorno to raise $2bn on margins of only ⅜ per cent over Libor or ⅛ over Prime.

It is a surfeit of Italian loans more than anything else which has led the Eurocredit market to resist deals on very fine margins, but the fact that they now appear to be drifting upwards has given some bankers fresh heart in the general war against margins of less than ½ per cent.

Trying to talk up spreads has of course proved a fruitless exercise in the past and two other new loans will do little to support the case for suggesting that margins below ½ per cent will shortly become a thing of the past.

Early last week France's Credit National launched a $412m credit with a $200m tranche bearing an initial margin of only ¼ per cent, while Ansett, the private sector Australian airline, is raising $196m over 10 years through Hambros Bank at a margin of ¼ per cent for the first three years rising to ⅜ per cent.

Both these credits are special cases, however, and both have been launched by countries whose borrowers can still lay claim to the very best conditions the market has to offer.

The Credit National credit bears a European currency unit 200m tranche priced at an attractive effective margin to managing banks of ½ per cent. The Ansett credit is to be used for the purchase of Boeing aircraft. Airline financings have always been especially popular.

For other, lesser rated, credits the prospect of hanging on to a ⅜ per cent margin seems to be receding and some bankers suspect that this may be the reason why Greece's Public Power Corporation has now taken several weeks to award a mandate for its forthcoming $175m credit.

Dr Roberto Campos, Brazil's Ambassador to Britain, believes by contrast that the time is ripe for some easing of conditions on Brazilian Eurocredits. This has focused considerable attention on the forthcoming $300m credit for Itaipu the hydroelectric project.

An offer for this credit has been made on as yet undisclosed terms by a group of banks led by Citibank and Morgan Guaranty. But meanwhile the Sao Paolo electric utility CESP is arranging a $50m credit which already bears an unusually long 9½ year tranche.

County Bank, Crocker, Libra and Royal Bank of Canada are arranging this credit on a club basis with two tranches. One of $30m bears a margin of 2¼ per cent for eight years, the other of $20m has a life of 9½ years and a slightly higher spread.

Canada is in the limelight for two reasons. First, the Federal Government has increased its standby credit arranged with domestic banks in 1977 to U.S.$3.5bn from U.S.$2.5bn and extended the maturity by 3½ years to mid-1989.

The margin on outstanding balances has been cut to ¼ per cent for the first two years rising to ⅜ per cent thereafter instead of the flat ½ per cent prevailing previously.

Second, Canada Development Corporation is raising a U.S.$1.75bn credit, it was announced on Friday.

Portugal's state-owned Petroquimica chemical concern is raising $100m over eight years with a margin of ½ per cent over Libor throughout through a group of banks led by Paribas.

In Africa, the Bank of Zambia is raising a $25m short-term trade facility through Citicorp. First Chicago is arranging a $60m, one-year letter of credit facility for the Maize and Wheat Board of Kenya.

CURRENT INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead manager	Offer yield %
U.S. DOLLARS							
‖§Tiger Ov. Fin. BV	30	1996	15	10½	100	Goldman Sachs	10.250
‡††Natwest Fin. BY	175	1991	10	5¼◊	100	County Bank	5.319◊
‡Trizec Corp.	40	1986	5	16	99	Merrill Lynch	16.306
‡§Hitachi Credit	40	1996	15	5	100	Nomura Intnl., Yamaichi Secs.	5.000
†Vitro	75	1988/91	—	8◊	100	SBC Intnl.	8.160◊
†Tamsa	80	1989	8	9¼◊	100	Merrill Lynch	9.726◊
**†Pemex	75	1988	7	5¼◊	100	SBC Intnl.	5.319◊
‡Toronto Dominion Bank	50	1984	3	15	100	Morgan Stanley	15.000
§Blue Ridge Petrlm. Corp. NY (g'teed AmRo Bk.)	25	1986	5	4	100	EBC	4.000
‡†Societe Generale	75	1991	—	5¼◊	100	Societe Generale, EBC	5.319◊
§Hazama-Gumi	30	1996	15	6	100	Daiwa, KIIC, Morgan Stanley Dai-Ichi Kangyo	6.000
§Murata	30	1996	15	5½	100	Nomura Intnl.	5.500
§Northwest Intnl. Fin.	50	1996	15	9	100	Goldman Sachs	9.203
‡**Australia Indy. Dev. Corp.	20	1984	3	14⅞	99½	Citicorp, Hambros	15.094
§Dainippon Inc. and Chemicals, Inc.	40	1996	15	6	100	Yamaichi, CSFB, Paribas, Smith Barney	6.000
‡†Long Term Credit Bank of Japan	30	1989	8	5¼◊	100	LTCB Intnl. CSFB	5.500◊
SWISS FRANCS							
Copenhagen Reinsurance	20	1991	—	8	100	Handelsbank	8.000
World Bank	100	1991	—	7⅜	100	Credit Suisse	7.375
‡**§Uneed	35	1987	—	4¾	100	SBC	4.750
EUA							
‡Nederlandse Gasunie	20	1986	5.6	11¼	100	Kredietbank	11.250
I/S Elsam	20	1989	8	11½	*	Kredietbank	*
GUILDERS							
‡Denmark Mort. Bank	100	1991	8	12	99½	AmRo Bank	12.133

* Not yet priced. ‡ Final terms. ** Placement. † Floating rate note. ◊ Minimum. § Convertible. ‖ Postponed. †† Registered with U.S. Securities and Exchange Commission.
Note: Yields are calculated on AIBD basis.

INTERNATIONAL BONDS

BY FRANCIS GHILES

Steady nerves as interest rates rise

THE RISE in U.S. interest rates last week failed to have any significant impact on the prices of fixed interest dollar Eurobonds which slipped by only ½ points in five full trading days.

Federal funds touched 21¼ per cent last Wednesday but the six-month Eurodeposit rate gained only ¼ of a point on the week to close at 17⅞ per cent on Friday. But this great resilience of the Eurobond market is not new. As often before this year it has occurred against the background of very low secondary market turnover.

Investors were disappointed by the rise in U.S. interest rates when many of them had been anticipating a decline. Most of them, however, are so firmly convinced that short-term dollar interest rates will fall, if not this week, then next week or the week after, that they choose to sit tight and wait. There is no sign of any concerted selling of bonds and some investors are still buying.

Indeed the only effect that sharp daily falls in the New York market appear to have at present in Europe is to slow the placing of new issues currently on offer.

A sign of how steady the dollar sector continues to be was the performance of the recent $500m 14⅞ per cent bond to 1986 for the World Bank, completed at the end of last month. It traded throughout the week at 96½ in the middle and was always quoted on a ½ per cent trading spread; that is finer than most.

A 15 per cent bond to 1984, the third for Toronto Dominion Bank this year, was the only new straight public issue announced last week and it appeared to meet with a friendly reception. A small $20m private placement for the State-owned Australia Industry Development Corporation was arranged through Citicorp and Hambros.

New issue activity was concentrated on the Floating Rate Note and convertible fronts. The three FRN notes for Mexican borrowers, Vitro, Tamsa and Pemex, all went well while the $125m note to 1991 for National Westminster which had been launched the week before, was increased by $50m before subscriptions were closed. Secondary market turnover in FRN issues was much more active than in the fixed interest sector.

A $75m 13-year FRN for Midland Bank is expected today. It will be redeemable at noteholders' option at year eight and it will include an interest rate set at ¼ per cent over the mean of the bid and offered six-month Eurodollar deposit rate. A minimum coupon of 5¼ per cent is expected and the issue is being led by Samuel Montagu, European Banking Company and CSFB. This FRN is expected to include a feature to encourage holders to waive their rights to redeem in 1989.

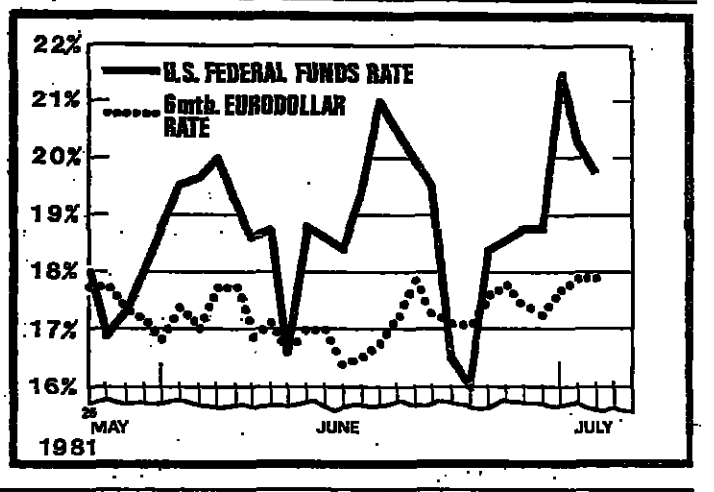
Five convertible bonds were launched, three of which are for Japanese companies. Japanese convertibles continue to be in great demand, as testified by the cut in the coupon of the $40m Hitachi convertible to 1996, by ½ point to 5 per cent. The other two convertibles are for U.S. companies, Northwest Energy and Blue Ridge Petroleum.

D-Mark foreign bond prices gained ¼ of a point on the week, helped by the flow of interest payments, which are heavy on July 1, back into the market. Swiss franc bond prices were unchanged but the two public issues announced last week were selling well, evidence that there is still a steady demand for Swiss franc paper.

TOP LEAD MANAGERS IN THE EUROBOND MARKET

Name	Amount $m
1 CSFB	1,217.5
2 Deutsche Bank	803.8
3 S. G. Warburg	622.3
4 Merrill Lynch	593.2
5 Salomon Bros	577.4
6 Morgan Stanley	477.5
7 Nomura	412.5
8 Goldman Sachs	398.3
9 CCF	383.5
10 Societe Generale	330.8

Note: Includes all public issues of Eurobonds (excluding foreign bonds in domestic markets in Europe, U.S. and Japan) completed between January 1 and June 30, 1981.



U.S. BONDS

BY DAVID LASCELLES

Thankful for a four-day week

WALL STREET was thankful to escape for the long holiday weekend on Thursday night, curtailing a week in which the credit market had once again banged its head to no avail against the brick wall of high interest rates.

The Fed funds rate was back up at 20 per cent, nearly two points higher than the week before, pushing up carrying costs and forcing dealers to unload inventories. Some borrowers plucked up the courage to come to market, but the majority postponed their plans yet again.

Once more, the Federal Reserve Board was largely responsible. By keeping the market short of reserves, it ensured that short-term rates stayed high even though there was probably enough optimism in the market to bring them down a bit. A couple of large banks, Chase Manhattan and First National Bank of Chicago, raised their prime rates by ½ of a percentage point to 20½ per cent, bringing it to within half a point of its all-time high.

The focus of the market's attention this week will be tomorrow's meeting of the Federal Reserve Board's Open Market Committee (FOMC), which will review monetary policy in the light of developments over the past month and a half.

There is much hope—though not much conviction—that the committee will decide that a slight easing is justified in the wake of the more encouraging economic and financial news of the last few weeks, notably slower money supply growth, slackening inflation, and a cooling in th eeconomy, as highlighted by last week's report that the leading economic indicators fell 1.8 per cent in May.

Two big corporate names came to market last week. IBM Credit Corporation borrowed a total $250m, paying 14.45 per cent on $100m of five-year notes and 13.85 per cent on $150m of seven-year notes with zero coupons. ITT sold $150m of 20-year bonds at a yield of 15 per cent and a similar amount of 30-year bonds at 15.125 per cent.

But the World Bank, making its first foray on to the U.S. market since 1977, was forced to delay an issue of $500m in equal amounts of five- and 10-year notes.

Continuing its pace of heavy borrowing, the Treasury sold $3bn of seven-year notes at 14.07 per cent, a record for that type of security. The Treasury has sold $12bn of notes and bonds in only two weeks.

Because of the holiday last Friday, the weekly money supply announcement was postponed until this afternoon.

U.S. INTEREST RATES (%)

	Week to July 2	Week to June 26
Fed Fnds wkly. avge	19.57	17.74
3-month Treas. bills	14.80	14.05
3-month CD	17.40	16.80
30-year Treas. bond	13.43	13.10
AAA Utility	15.38	15.13
AA Industrial	14.88	14.53
Visible supply of corporate bonds ($bn)	7.8	7.4

Source: Salomon Bros. and First Boston

FT INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Am. Air. 15⅞ 86 (WW)	55	99	99¼	+0¼	−0½	15.38
Amoco 13¾ 88	75	94¼	94¾	−0⅛	−0⅝	14.56
CIBC 14½ 84	185	97⅝	98⅛	−0⅛	−0½	15.41
CIBC 15⅝ 86	75	99⅜	99⅞	+0⅛	−0½	15.36
CNA 15¾ 86	75	97⅞	98⅜	−0⅛	−0½	15.62
CNE 12⅞ 91	100	88½	89	+0⅛	+0½	14.99
Citicorp O/S 12 87	200	89½	90	0	−0⅜	14.56
Citicorp O/S 15½ 84	175	100½	100⅞	+0⅛	0	15.31
Con. Illinois O/S 9¾ 86	150	82½	83	+0⅛	−0⅛	14.88
Dupont Canada 13½ 91	85	94⅞	94¾	−0⅛	−1	14.58
EIB 12⅞ 89	75	87⅞	88⅜	0	−0½	15.47
Eldorado 13⅞ 86	50	93⅞	94⅜	+0½	−0⅜	15.02
Elec. de France 13 88	125	91⅞	92⅜	0	−0½	14.98
Export Dv. Cpn. 9½ 86	150	82⅛	82⅝	+0¼	−0⅛	15.09
Fed. Bs. D. 12⅞ 85 (N)	50	91⅝	92⅛	+0¼	−0⅛	14.84
Fed. Bs. D. 15⅞ 84 (J)	40	100⅝	101⅛	+0⅛	0	15.28
Fin. Exp. Credit 10½ 85	50	84⅞	85⅜	+0⅛	−0⅛	15.75
Finland, Rep. of 9½ 86	100	80⅜	80⅞	+0⅛	−0⅛	15.57
Ford Cr. O/S Fin. 16 84	150	101	101½	+0⅛	0	15.25
Gaz de France 13½ 88	80	94⅞	95⅜	+0⅛	−0⅛	15.06
GMAC O/S Fin. 12⅞ 88	100	90⅝	91⅛	+0⅛	−0⅛	15.10
GMAC O/S Fin. 14⅝ 87	100	97½	98	+0⅛	−0⅛	15.35
Gen. Mtrs. O/S 11⅝ 87	100	87⅜	87⅞	−0⅛	−0⅛	14.87
Genstar 14¾ 91	50	98⅛	98⅝	+0⅛	−0⅛	15.04
GTE Fin. 13⅝ 86 (WW)	50	96⅛	96⅞	+0⅛	−0⅛	14.75
Hiram Walker 16 86	50	102⅝	102⅞	+0⅛	+0⅛	15.78
IBM Wld. Trade 12½ 88	200	96⅛	96⅝	+0⅛	−0⅛	13.50
IBM Wld. Trade 14⅝ 84	100	100⅝	100⅞	0	−0⅛	14.45
Nat. Bk. Canada 15¼ 84	40	98½	99	0	+0⅛	15.79
Newfoundland 13½ 90	60	92¾	93	+0¼	−1⅛	15.04
Nova Scotia 15 91	75	97¾	98¼	−0½	−0½	15.40
OKB 10 85	121	85⅛	85⅝	−0⅛	−0⅛	15.09
Ontario Hydro 13½ 91	100	93⅛	93⅝	−0⅛	−1⅛	14.79
Queb. Hy. 13 91 (WW)	100	89¼	89¾	0	−0⅛	15.10
Royal Bk. Canada 14 86	100	98	98½	+0⅛	−0⅛	14.49
SNCF 13 91	75	90⅝	91⅛	−0⅛	−0⅛	14.77
Sth. California Ed. 14 87	50	97½	98	+0¼	−0⅛	14.58
Sven Handlsbk. 13⅝ 88	45	93	93½	+0⅛	+0⅛	15.35
Swed. Ex. Credit 13 88	75	91	91½	+0⅛	−0⅛	15.77
Swed. Ex. Cred. 15⅞ 86	50	100⅛	100⅝	0	−0⅛	15.57
Toronto-Dom. Bk. 14 84	50	96½	97	+0⅛	−0⅜	15.44
Tribune O/S Fin. 14 86	50	95⅜	95⅞	+0⅛	−0½	15.31
Wells Fargo Int. 15½ 84	50	100⅛	100⅝	0	−0⅛	15.25
World Bank 9⅝ 85	200	84⅞	85⅜	+0⅛	−0⅛	15.00
World Bank 10⅛ 87	300	81⅜	81⅞	+0⅛	−0⅛	15.14

Average price changes... On day +0⅛ on week −0⅛

DEUTSCHE MARK STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Asian Dev. Bank 10 91	100	97⅞	98⅜	0	−0⅛	10.28
Austria, Rep. of 8¼ 92	150	87⅞	88½	+0⅛	+0⅛	10.05
CECA 7⅞ 92	150	85⅝	86½	−0⅛	+0½	9.98
CECA 10 91	120	100⅝	101⅛	+0⅛	−0⅛	9.86
CII-Honeywell 8⅛ 90	125	88⅛	88⅞	+0⅛	+0⅛	10.39
Council of Europe 10 91	100	99⅜	99⅞	−0⅛	+0⅛	10.07
EIB 8½ 90	200	89⅝	90⅛	+0⅛	+1⅛	10.20
EIB 10½ 91	200	100⅝	101⅛	0	+0⅛	10.36
ESCOM 9⅝ 87	100	90⅝	91⅛	0	0	11.29
Finland, Rep. of 10 89	100	97⅞	98⅜	0	0	10.42
Iberduero SA 9 90	100	89½	90⅛	+0⅛	+0⅛	10.80
Ind. Bk. Finland 8½ 90	50	89⅝	90⅛	+0⅛	+0⅛	10.24
Int.-Am. Dv. Bk. 10 91	100	99¼	100	0	+0⅛	10.04
Japan Air Lines 8½ 87	100	91⅞	92⅜	+0⅛	+0⅛	9.80
Japan Dev. Bk. 7⅞ 87	100	88⅛	88⅝	0	+0½	10.16
Kobe, City of 8 90	100	87⅞	88⅜	+0⅛	+0⅛	10.14
Midland Int. Fin. 8½ 90	180	89⅜	89⅞	−0⅛	+0⅛	10.29
Nuclebras 9¾ 88	100	87	88	+0½	+0⅞	12.46
OKB 8¼ 92	150	88	88¾	−0⅛	−0⅛	10.39
Oslo, City of 8⅞ 90	80	91⅝	92⅛	−0½	−0⅛	10.17
Venezuela, R. of 9⅜ 90	150	93⅝	94⅛	+0⅛	0	10.83
World Bank 8 90	700	86	86¼	−0⅛	−0⅛	10.38
World Bank 10 86	150	101⅜	102½	+0⅛	+1⅛	9.42

Average price changes... On day 0 on week +0⅛

SWISS FRANC STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Aeroport Paris 6½ 91	60	96	96½	−0⅛	0	7.06
BFCE 6½ 91	100	†96	96½	−0⅛	+1	7.04
Bayer Int. Fin. 5⅜ 92	100	90⅛	90⅝	−0⅛	−0⅛	6.47
Bergen, City of 6⅞ 91	40	100	100½	+0⅛	+0⅛	6.73
Bbrmn.-Tetterode 7 90	40	100¼	100½	+0¼	+0¼	6.94
CECA 6⅞ 91	80	97⅛	97⅝	−0⅛	+0½	7.14
Denmark 5⅝ 90	80	88	88¼	−1⅛	−1⅛	7.62
Dome Petroleum 5¾ 91	100	95½	95⅞	+0⅛	0	6.42
Elec. de France 5¼ 90	100	†92	92½	+0⅛	+1⅛	6.40
Eurofima 5¾ 92	80	†98½	99	0	−0¼	5.90
F. G. H. Hypo. Bk. 6 90	50	94⅞	95⅛	+0⅛	−0⅛	6.76
Finland, Rep. of 5⅞ 90	80	87½	87¾	−2	−2	7.55
Franc. Petroles 6½ 91	80	97⅛	98	+0⅛	+0½	6.80
Genstar 7 91	100	103⅛	103½	−0½	+0⅛	6.52
Inter-Amer. Dv. Bk. 7 91	100	99	99½	−0⅛	−0⅛	7.12
Japan Dev. Bank 5¾ 90	100	†93	93½	−1⅛	−0½	6.75
Mt. Blanc Tunnel 5½ 90	80	†90	90½	+0⅛	+0⅛	6.97
Newag 5⅞ 90	80	†91½	92	−0⅛	−0⅛	7.02
OKB 7 93	100	98½	99¼	−0⅛	0	7.04
Oslo, City of 5⅞ 90	80	92	92½	+0⅛	+1½	7.03
Philips Lamps 5⅝ 92	100	†89½	90	−0⅛	0	6.58
Swed. Ex. Cred. 7¼ 91	75	96⅛	96⅝	−1⅛	−1⅛	7.77
Trade Dev. Fin. 6½ 90	80	†91½	92	−0⅛	0	7.39
Voest-Alpine 5⅜ 90	80	†90¼	90¾	0	−0¼	7.19
World Bank 6 91	100	93½	93¾	−0⅛	−0⅛	6.92
World Bank 7 90	100	100½	100⅞	−0¼	−1	6.90

Average price changes... On day −0⅛ on week 0

YEN STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Asian Dev. Bk. 8⅜ 91	15	97⅝	98⅛	−0½	−0⅛	8.53
Australia 6½ 88	20	85½	86½	+0⅛	−0⅛	9.35
EIB 7⅞ 89	12	91⅞	92⅞	−0⅛	−0⅛	9.11
Finland 5.6 83	10	91½	92½	+0⅛	+0⅛	9.51
Finland 6.8 88	10	85½	86½	−0⅛	+0⅛	9.58
Finland, Rep. of 8⅜ 87	15	97⅝	98⅜	0	0	9.79

Average price changes... On day 0 on week −0⅛

OTHER STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Bell Canada 10⅞ 86 C$	60	86½	87½	0	−0½	14.41
CIBC 13½ 85 C$	50	93¾	94¾	0	−0⅛	15.55
CIBC 11½ 85 C$	60	86½	87½	0	+0⅛	16.12
Federal Dev. 11½ 90 C$	50	†80¼	81¼	0	0	15.61
Fst. Can. Inv. 10 84 C$	50	†85½	86½	0	0	16.47
R. Bk. Canada 10 86 C$	40	88¼	89	0	0	13.30
Tordom Cpn. 13½ 85 C$	30	†94⅞	95⅞	0	−0⅛	15.36
M. Bk. Dnmk. 9 91 EUA	25	86⅞	87⅞	+0⅛	−0⅛	11.16
SOFTE 8⅞ 89 EUA	40	87⅞	88⅞	+0⅛	+0⅛	10.63
U. Bk. Nwy. 9½ 90 EUA	18	94⅞	95⅞	−0⅛	−0⅛	10.43
Algemene Bk. 10⅞ 86 Fl	60	94⅞	95⅞	−0⅛	−0½	11.70
Amro Bank 12 86 Fl	75	99⅞	100⅞	0	−0⅛	12.00
Heineken NV 10 87 Fl	100	93⅛	93⅞	+0¼	−0⅛	11.58
Nat. Nedrlndn. 10 88 Fl	60	94⅞	95	0	+0⅛	11.17
Ned Midd. Bk. 10 85 Fl	75	93⅛	93⅞	−0⅛	−0⅛	12.03
Pierson 10⅞ 86 Fl	50	93⅛	93⅞	−0⅛	−0⅛	12.12
Rabobank 12 86 Fl	50	99⅞	100⅛	−0⅛	−0⅛	11.99
Air France 14½ 85 FFr	200	91½	92½	+0¼	0	17.01
Bk. America 14½ 86 FFr	250	90⅞	91⅞	+0⅛	+1⅛	17.44
Charb'nages 13⅞ 85 FFr	400	88⅞	89⅞	+0⅛	+0⅛	17.40
EIB 14⅛ 88 FFr	300	87⅝	88⅝	+0⅛	+0⅛	17.22
La Redoute 14½ 85 FFr	125	86⅛	87⅛	+0⅛	−0⅛	18.91
OKB 14 86 FFr	400	91⅞	92⅞	+0⅛	+0⅛	16.53
Solvay et C. 14⅛ 86 FFr	200	95⅞	96⅞	+0⅛	+0⅛	15.99
Swed. E. Cr. 14⅛ 88 FFr	250	88⅛	89⅛	+0⅛	+0⅛	18.24
U. Mex. Sts. 14 85 FFr	150	89⅞	90⅞	+0⅛	+0⅛	17.72
Acona 14 85 £	20	93⅛	94⅛	+0⅛	0	15.95
Beneficial 14⅛ 90 £	20	86⅛	87	−0⅛	−1⅛	17.15
BNP 13½ 91 £	15	89¼	90⅛	−0⅛	−0⅛	15.58
CECA 13½ 88 £	20	91⅛	91⅞	−0⅛	−0⅛	15.47
Citicorp O/S 13½ 90 £	50	93⅝	94⅝	0	−0⅛	14.73
Fin. Ex. Cred. 13⅜ 86 £	15	92⅞	93⅜	0	−0⅛	15.82
Gen. Elec. Co. 12½ 89 £	50	87⅜	88⅜	−0⅛	−0⅞	15.21
Hiram Walker 14⅛ 86 £	25	95	95⅜	0	−0⅜	15.64
Privatbanken 14½ 88 £	12	91⅛	92⅞	−0⅛	−1	16.57
Rothschild 14⅛ 90 £	12	93¾	94½	0	−0⅛	15.47
Royal Trustco 14 86 £	12	95¾	96	−0⅛	−0⅞	15.31
Swed. Ex. Cr. 13⅜ 86 £	20	93¼	94	−0¼	−0⅛	15.70
Akzo 9¾ 87 LuxFr	500	89⅞	90⅞	0	+0½	11.45
Euratom 9¾ 88 LuxFr	500	84⅞	85⅞	−0⅛	−5½	13.70
Eurofima 10½ 87 LuxFr	500	89⅞	90⅞	−0¼	−0⅞	12.78
EIB 9¾ 88 LuxFr	600	87½	88½	−0⅛	−2	12.50
Volvo 9¾ 87 LuxFr	500	86½	87½	−0⅛	−0⅛	12.81

FLOATING RATE NOTES	Spread	Bid	Offer	C.dte	C.cpn	C.yld
Bank of Montreal 5¾ 90	0¼	98⅞	99⅛	18/12	16¾	16.90
Bank of Tokyo 5⅞ 89	‡0⅛	98⅞	99⅛	25/7	16½	16.69
BBL Int. 5 86	0¼	99⅝	100⅛	20/11	18.31	18.34
BNP 5½ 88	‡0⅛	98⅞	99⅜	29/7	16.44	16.58
CNT 5⅝ 86	§0¼	99⅜	99⅞	16/10	16.81	16.88
Christiania Bk. 5½ 91	‡0¼	97⅞	98⅜	5/8	17.31	17.64
Citicorp O/S Fin. 84	‡0	99	99½	29/7	18.69	18.83
C. Itoh 5⅜ 87	0¼	98¾	99¼	18/9	15.44	15.59
Co-operative Bk. 6 86	0¼	99⅝	100⅛	15/11	19.56	19.59
Den Norske Credit 6 90	‡0¼	98⅞	99⅜	5/8	17.31	17.51
Genfinance 5¼ 87	0¼	99	99½	30/10	16.94	17.07
Genfinance 5⅝ 92	0¼	99⅛	99⅝	30/12	18.31	18.43
Giro und Bank 5¾ 91	‡0¼	98⅞	99⅜	23/9	19.06	19.23
GZB 5½ 89	‡0¼	98⅝	99⅛	1/8	17.31	17.51
GZB 5¼ 92	‡0¼	98⅜	98⅞	5/9	17¼	17.49
Ind. Bank Japan 5¼ 87	0¼	99⅛	99⅝	15/10	17.06	17.17
Ind. Bank Japan 5⅝ 88	0¼	98¾	99¼	9/10	16.44	16.60
Lloyds Eurofin 8 90 £	0¼	97¼	97¾	3/7	14½	14.87
Lloyds Eurofin 5¼ 92	0¼	98⅝	99⅛	4/12	17.44	17.64
LTCB Japan 5⅝ 86	0¼	99⅝	100⅛	13/12	17⅛	17.27
Man. Hanov. O/S 5¼ 94	‡0½	99½	100	30/8	19.08	19.11
Merrill Lynch O/S 87	0½	100	100½	7/8	20.44	20.39
Midland Int. Fin. 5¼ 92	0¼	98⅞	99⅜	5/12	17⅜	17.53
Midland Int. Fin. 9 91	0¼	98⅜	98⅞	20/10	16.81	17.07
Nacional Fin. 6⅛ 86	0¼	98⅞	99⅛	25/7	17⅜	17.91
Nacional Fin. 5½ 88	0¼	96⅝	97⅛	25/9	14⅞	15.34
Nat. Bk. Canada 5¼ 88	0¼	97⅞	98⅜	24/9	14½	14.78
Nat. West. 5⅞ 94	§0¼	98⅛	98⅝	14/10	16.19	16.45
Nat. West. 5⅞ 92	§0¼	99⅛	99⅝	23/10	16.81	17.09
Pemex 6 91	0¼	96⅞	97⅜	8/10	15.31	15.77
Sparebanken 6 87	0¼	99⅛	99⅝	19/12	16.81	17.05
Standard Chart. 5½ 90	0¼	98⅞	99⅜	3/9	17.06	17.21
Svenska Hndlsbk. 5 87	0¼	99¼	99¾	15/7	17.81	17.90

Average price changes... On day 0 on week −0⅛

CONVERTIBLE BONDS	Cnv. date	Cnv. price	Bid	Offer	Chg. day	Prem
Ajinomoto 5⅜ 96	7/81	933	101¾	102¾	+0⅞	2.21
Bow Valley Inv. 8 95	4/81	23.12	101⅝	102⅞	−0⅛	79.67
Canon 6¾ 95	1/81	829	172½	174	+0⅛	0.62
Credit Suisse 4¾ 93	10/79	12.36	81¼	83	0	−2.27
Digicon Fin. 8½ 95	10/81	29.5	†98	99	−1	19.82
Fujitsu 5½ 96	7/81	732	†106½	107½	0	7.99
Hanson O/S Fin. 9½ 96	8/81	2.74	93	94½	0	0.87
Ina Overseas 8⅜ 2000	4/81	42	†104½	106½	−1½	−0.16
Inchcape 8 95	2/81	4.55	78	79½	−0½	4.80
Kotobukiya Co. 7 96	4/81	619	†94¼	95¼	+0¼	−0.92
Marion Int. Fin. 9 95	12/80	15.5	†76	77	−0¼	17.05
Marui 6 96	7/81	931	†108⅛	109½	+2⅞	2.94
Matsushita El. 7½ 95	11/80	590	98	99	0	−1.55
NKK 6½ 96	7/81	188	†113½	114½	−0⅛	23.66
Ricoh 6⅝ 95	8/80	604	†158	159	+5⅛	1.42
Sumitomo M. Ind. 7 95	2/81	181	†148	149	+5⅛	2.37
Swiss Bk. Cpn. 6⅝ 90	9/80	200	74⅛	76½	+0⅛	30.02
Taylor Woodrow 8⅜ 90	1/81	4.94	93	94½	+0½	4.85
Transco Int. 8¾ 95	2/81	68	†78⅛	80	−0⅛	38.18
Tricorp 8½ 95	12/80	31.25	†78⅛	79⅛	−0⅞	12.22
Union Bk. Switz. 5 89	2/80	70.79	†74½	76½	+0⅛	5.79
Fujitsu 5 84 DM	7/79	431.5	205⅞	206⅞	+0⅛	−1.24
Sharp Cpn. 6½ 88 DM	9/80	595	197½	198⅝	+1½	−0.83
Uny Co. 6½ 85 DM	11/79	879.3	116½	117¼	−0⅛	−1.38

EUROBOND TURNOVER
(nominal value in $m)

	Cedel	Euro-clear
U.S. $ bonds		
Last week ...	2,603.2	7,242.4
Previous week	2,498.8	5,624.3
Other bonds		
Last week ...	582.9	493.6
Previous week	958.3	521.0

* No information available—previous day's price.

† Only one market maker supplied a price.

STRAIGHT BONDS: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week = Change over price a week earlier.

FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte = Date next coupon becomes effective. Spread = Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn = The current coupon. C.yld = The current yield.

CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Chg. day = Change on day. Cnv. date = First date for conversion into shares. Cnv. price = Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem = Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

The list shows the 200 latest international bonds for which an adequate secondary market exists. The prices over the past week were supplied by:

Kredietbank NV; Credit Commercial de France; Credit Lyonnais; Commerzbank AG; Deutsche Bank AG; Westdeutsche Landesbank Girozentrale; Banque Generale du Luxembourg SA; Banque Internationale Luxembourg; Kredietbank Luxembourg; Algemene Bank Nederland NV; Pierson, Heldring and Pierson; Credit Suisse/Swiss Credit Bank; Union Bank of Switzerland; Akroyd and Smithers; Bankers Trust International; Credit Commercial de France (Securities) London; Citicorp International Bank; Daiwa Europe NV; Deltec Trading Company; EBC; First Chicago; Goldman Sachs International Corporation; Hambros Bank; IBJ International; Kidder Peabody International; Manufacturers Hanover; Merrill Lynch; Morgan Stanley International; Nikko Securities Company (Europe); Orion Royal Bank; Salomon Brothers International; Samuel Montagu and Co.; Scandinavian Bank; Societe Generale Strauss Turnbull; Sumitomo Finance International; S. G. Warburg and Co.; Wood Gundy.

Closing prices on July 3

WORLD STOCK MARKETS

NEW YORK

1981 High	1981 Low	Stock	July 2
51¾	44½	ACF Industries	44⅝
26¼	19¾	AMF	23
16⅝	11	AM Intl	13¼
37¼	31⅛	ARA	33⅛
66⅛	42½	ASA	44⅝
36⅝	27	AVX Corp	33½
31½	27⅞	Abbott Labs	29¾
30¼	23⅞	Acme Cleve	26½
43¾	27⅛	Adobe Oil & Gas	33¾
36¼	20	Advanced Micro	21½
43⅛	30½	Aetna Life & Cas	38¾
20¾	17	Ahmanson (H. F.)	17½
48⅛	39	Air Prod & Chem	40
15¼	12⅝	Akzona	14
38	28¼	Albany Int	30½
15⅝	12¾	Alberto-Culv	13
26½	20	Albertson's	25½
39⅛	27¼	Alcan Aluminium	27½
21⅛	16¾	Alco Standard	18¾
54¾	37	Aleghany Ludm	45¼
57⅝	47⅛	Allied Corp	53
30⅞	20½	Allied Stores	28½
36⅛	25⅝	Allis-Chalmers	27⅛
15½	11⅛	Alpha Portd	13⅝
37¼	28⅝	Alcoa	28⅝
51⅝	34	Amal. Sugar	57⅝
67	38	Amax	64⅝
43⅝	26⅞	Amerada Hess	27½
21	8⅛	Am. Airlines	17⅛
46	34⅞	Am. Brands	41½
35⅝	25⅝	Am. Broadcast'g	29⅞
44½	28¾	Am. Can	40¼
36¼	28⅝	Am. Cyanamid	32⅛
17⅞	15⅜	Am. Elect. Pwr.	16⅞
54	40	Am. Express	47¼
46⅝	35⅞	Am. Gen. Insnce.	43
28½	18¾	Am. Hoist & Dk.	20
35⅞	28⅝	Am. Home Prod.	32¼
50⅞	41⅝	Am. Hosp. Suppy.	41⅝
48⅛	36⅝	Am. Medical Intl.	42
4⅞	3¾	Am. Motors	3⅞
49¼	39	Am. Nat. Rescs.	42½
71⅞	46	Am. Petfina	62
31⅝	20⅝	Am. Quasar Pet.	20½
43	31	Am. Standard	37¾
27¾	21⅝	Am. Stores	26⅛
58	48¾	Am. Tel & Tel	55
35⅝	25	Ametek Inc	32¾
28⅝	23¼	Amfac	24¼
62¼	44¼	AMP	50½
28¾	23	Amstar	25¾
48	41⅝	Amstead Inds	44
20	15⅛	Anchor Hockg	15⅛
40⅝	28⅛	Anheuser-Bh	37⅛
34½	26	Arcata	30
24⅝	17⅝	Archer Daniels	17¾
41⅝	31½	Armco	33⅞
18⅝	14⅜	Armstrong CK	17¾
17¾	13⅜	Asamera Oil	13⅜
48½	33⅝	Asarco	36¾
40⅞	29¼	Ashland Oil	38⅜
31	24	Assd D Goods	28⅜
65⅞	41⅝	Atlantic Rich	46½
31¾	23½	Auto-Data Prg	27¼
31⅞	24	Avco	28¾
25	19¼	Avery Intl	24½
60½	41½	Avnet	50
41¾	33¼	Avon Prods	38⅛
49	35½	Baker Intl	38⅛
24¼	20	Balt. Gas & El	23⅜
31⅞	24	Bancal Trist	29¾
28½	20⅛	Bangor Punta	26
30⅝	24½	Bank America	24¾
41⅞	34⅝	Bank of N.Y.	38½
37	28	Bankers Tst. N.Y	33¼
25	17⅝	Barry Wright	21¼
59⅜	47½	Bausch & Lomb	54¼
59¼	48½	Baxt Trav Lab	53¼
23¼	17½	Beatrice Foods	20¾
39¾	32	Beckman Instr	35⅛
24½	12⅛	Beker Inds	12½
29¾	23½	Bell & Howell	23⅞
18½	11⅛	Bell Industries	16½
64	55½	Bendix	64
25¼	20	Benificial	22⅝
32	23	Beth Steel	24¾
37⅝	27¾	Big Thee Inds	29⅛
21⅝	17½	Black & Decker	19
38	29½	Block HR	34⅞
33⅝	25¾	Blue Bell	28⅞
45¾	29½	Boeing	29⅞
47¾	33⅛	Boise Cascade	42
29½	25½	Borden	27⅜
53¾	37½	Borg Warner	50
5¼	3¾	Braniff Intl	4
26¼	22	Briggs Stratn	25⅝
58½	46⅛	Bristol-Myers	49¼
59⅜	23⅞	BP	24
17¼	14⅛	Brockway Glass	15½
64	54	Brown Forman B	64
29½	20	Brown Grp	25½
31	23½	Brown & Sharp	26¾
37	23½	Browng-Ferris	37
22	13⅛	Brunswick	20⅞
25¼	19⅛	Bucyrus-Erie	19⅜
25	18½	Burlington Ind	21⅛
72	51	Burlington Nrhn.	52⅞
45⅛	32½	Burndy	42⅛
55⅜	39	Burroughs	39⅝
63½	43¾	CBI Inds	46
60⅝	47⅛	CBS	56⅛
35½	29¾	CPC Intl	31¼
56⅝	46⅝	CSX	54¼
21⅛	13⅜	Campbell Red L.	14½
35	28½	Campbell Soup	28⅝
35	23⅛	Campbell Tagg	33
45½	25	Canal Randolph	36¼
42⅜	33⅝	Can. Pacific	37¼
54⅜	35⅝	Carlisle Corp	44¼
33	26½	Carnation	31⅜
51½	37	Carp Tech	49
20½	17¼	Carter Hawley	18⅞
72¾	54⅝	Caterpillar	65¼
68⅞	55½	Celanese Corp	67⅛
42½	32⅛	Centex	33
15	12¼	Central & Sw	14¼
17	12	Central Soya	18¼
35¼	23¼	Central Tel Util	29⅝
17	12	Certain-teed	16
36¼	23⅝	Cessna Aircraft	31⅞
5⅝	1½	Champ Home Bld	3⅛
26⅞	22⅞	Champ Int	26⅛
11¼	8⅜	Champ Sp Plug	10½
20	9½	Charter Co	10½
58½	43½	Chase Manhatt'n	53¾
61½	42⅞	Chemical NY	57⅜
39¼	28⅜	Cheese Pond	34¼
26¼	19	Chicago Pneum	23⅜
9¾	5⅛	Chrysler	6⅞
51⅞	37⅝	Chubb	48⅜
45⅞	28¼	Cincinnati Mil	38¼
29¾	21⅛	Citicorp	25¾
52¼	39⅞	Cities Service	50⅝
30½	21	City Investg	27⅜
38½	32½	Clark Equipment	33¾
45½	32	Cleve Cliffs Iron	37
13⅞	9⅞	Clorox	11¾
15½	9¼	Cluett Peaby	13⅛
39¾	32½	Coca Cola	34½
9¾	8½	Coca Btl. N.Y.	9½
18¼	14⅛	Colgate Palm	16¾
13¼	8½	Collins Aikman	12½
64½	44	Colt Inds	58¾

1981 High	1981 Low	Stock	July 2
41¼	31⅝	Columbia Gas	32½
45	35⅞	Columbia Pict	35⅛
22⅞	17	Combined Int	20⅛
49¼	36¼	Combustn. Eng	36¼
20⅝	17⅞	Cmwith. Edison	20⅛
62⅛	42	Comm. Satellite	58½
24⅛	16⅛	Comp. Science	19⅛
39⅞	31¾	Cone Mills	35⅜
56⅝	41⅞	Conn Gen Ins	48¾
69¾	52¼	Conoco	69¾
27	17⅜	Conrac	24¼
30½	22⅝	Cons Edison	28⅝
33½	24	Cons Foods	28¼
44½	24⅝	Cons Freight	41
55¾	43⅛	Cons Nat Gas	45¼
19⅛	16¼	Consumer Power	18¼
18⅝	9⅛	Cont Air Lines	9½
30¾	23⅛	Conti Corp	28⅛
40⅛	32⅛	Conti Group	35
42⅝	30⅞	Conti Illinois	38⅞
19	15	Conti Telep	17¾
84	60⅝	Control Data	70
53¼	43¾	Cooper Inds	44
16½	13⅛	Coors Adolph	14
38½	24⅞	Copeland	38½
34¼	23¾	Copperweld	31¾
74⅝	59¼	Corning Glass	65½
26	20⅝	Corroon Black	23⅝
78	55¼	Cox Broadcast'g	66½
45¾	38½	Crane	41⅞
40½	36⅛	Crocker Nat	38⅝
36⅝	28¼	Crown Cork	32⅞
52⅝	38¾	Crown Zell	40⅜
57⅝	30½	Cummins Eng	51½
49⅛	33⅝	Curtiss-Wright	49⅞
12½	8⅛	Damon	8½
33⅝	21⅞	Dana	29⅝
52	43	Dart & Kraft	49⅝
68½	46⅛	Data Gen	52¼
62	43¾	Dayton-Hudson	56
47	38¾	Deere	39½
81⅛	56⅛	Delta Air	68¼
31	19	Denny's	27
18	15⅛	Dentsply Intl	15¾
12¼	11	Detroit Edison	11⅜
38½	31⅞	Diamond Intl	34⅛
37⅝	28½	Diamond Shamk	34⅝
14	8⅝	DiGiorgio	12⅛
112¾	81¼	Digital Equip	97⅝
34¾	17⅛	Dillingham	31⅛
25	16	Dillon	22½
66½	49½	Disney (Walt)	62¼
24⅛	18	Dome Mines	20⅜
42⅝	31¼	Donnelly (RR)	39
64	54⅜	Dover Corp	54¾
38½	31⅜	Dow Chemical	31⅝
49⅝	30¼	Dow Jones	43¼
53¾	34¼	Dresser	38⅝
15	11⅛	Dr. Pepper	13
20	16¼	Duke Power	19
70	56	Dun & Brad	62⅞
55¼	40¾	Du Pont	51¼
43½	34	E G & G	39½
27⅞	16	Easco	26⅞
13¾	7⅛	Eastern Airlines	9⅞
29¾	23⅜	Eastern Gas & F.	23½
84⅞	69⅛	Eastman Kodak	72
41⅛	26½	Eaton	35¼
14⅞	13⅛	Echlin Mfg	13⅞
47¼	31⅝	Eckerd Jack	42⅛
58¼	34	Electronic Data	56½
8	4⅞	Elect. Memories	4⅞
25½	20	El Paso	22⅝
48¾	36⅜	Emerson Elect	44⅝
19¼	14⅜	Emery Air Fgt	17⅝
38⅜	28½	Emhart	32⅝
30¾	20⅝	Engelhard Corp	23½
34¼	23¾	Enserch	23¾
19⅛	13	Envirotech	14⅛
57⅛	38⅝	Esmark	54⅜
34½	26¾	Ethyl	29½
26¼	19⅛	Evans Prods	26¼
50⅝	28⅝	Ex Cell O	28⅝
40⅞	32	Exxon	33⅝
35¼	20	FMC	32⅜
28	19⅜	Faberge	22½
9⅛	6	Fedders	7⅜
26½	20	Federal Co.	21
26⅝	19⅞	Federal-Mogul	22⅞
12	8⅞	Fed. Nat. Mort	9⅝
39¼	27⅞	Fed. Paper Brd	28
6⅝	3¾	Fed. Resources	3⅞
43¼	29	Fed. Dep. Stores	38⅛
35⅝	25⅛	Fieldcrest Ml	28½
13¼	9⅞	Firestone	12½
46¼	38⅛	1st Bank System	42¼
19	13½	1st Charter Fin	15⅛
19⅞	15½	1st Chicago	19¼
40⅛	24½	1st City Bank Tex	36
31	24⅝	1st Inl Banc	30½
25½	15½	1st Mississippi	18¼
46½	34⅝	1st Nat. Boston	42¼
5	4	1st Penn	4⅝
4½	2⅝	Fisons	2⅝
14	8⅝	Fleetwood Ent	11¾
31¾	19¼	Flexi-Van	23⅜
30⅜	24¼	Florida Pwr & L.	29⅛
25⅛	19	Ford Motor	23⅛
40	31⅞	Foremost Mck	38¾
25⅛	17	Foster Wheeler	17⅝
61¾	45½	Foxboro	50⅝
40½	30	Freeport McM	32½
33	20	Fruehauf	28⅞
16⅛	12⅛	GAF	14¾
41	36¾	GATX	36⅞
45¼	34	Gannett	39
32	20⅝	Geico	24½
23⅝	17⅛	Gen Am Invest	20
38¼	25½	Gen Cinema	35⅝
42	30⅝	Gen Dynamics	31⅜
68¼	59¼	Gen Electric	60⅛
34¾	30¼	Gen Foods	30⅝
127¾	75	Gen Instrument	105
39¼	27	Gen Mills	36
57⅜	44	Gen Motors	52
41⅝	19¼	Gen Portland	39
5⅝	4	Gen Pub Utilities	5¼
51	42	Gen Signal	43⅞
32	24¾	Gen Telep Elec	29⅛
29⅛	18¾	Gen Tire	28
10⅞	5⅜	Genesco	9
36	26⅝	Genuine Parts	32½
31¾	25	Georgia Pac	26¾
62½	47⅛	Geosource	55¼
32¾	26½	Gerber Prod	30
92¼	59¼	Getty Oil	65⅞
28	22	Giddings Lewis	24⅝
35⅛	27⅝	Gillette	31½
35¾	20⅜	Global Marine	21½
27⅝	22⅛	Goodrich (BF)	25½
20½	17	Goodyear Tire	18⅞
30½	24⅞	Gould	30
59¼	43¾	Grace	46
44½	33⅞	Grainger (WW)	40⅝

1981 High	1981 Low	Stock	July 2
6¾	4¾	Gt. Atl. Pac. Tea	5⅛
13	11⅛	Gt. Basins Pet	12
47	38⅝	Gt. Nthn. Nekoosa	42¾
19	14⅛	Gt. West Financl.	15¾
20¼	14	Greyhound	17⅞
29⅛	23	Grumman	28⅛
21¼	14¾	Gulf & Western	19⅝
45½	31	Gulf Oil	33¾
27⅞	22⅛	Hall (FB)	25⅝
84⅛	53⅞	Halliburton	57⅛
35⅝	25⅝	Hammermill Ppr.	31⅞
19⅞	12¼	Handleman	16¾
37⅞	30⅜	Hanna Mining	33½
20⅞	17	Harcourt Brace	18⅞
22	13⅛	Harnischfeger	13¾
51⅛	25⅞	Harris Bancp	29⅞
59½	43½	Harris Corp	43⅛
21⅝	16¾	Harsco	20⅞
26	13¾	Hecla Mining	14¼
58½	46	Heinz (HJ)	55½
27¼	19¼	Heller Intl	24⅛
26⅛	18⅞	Hercules	24¼
40¾	23¼	Hershey	36
34⅞	28	Heublein	31⅞
105½	79¼	Hewlett Pkd	92¼
51½	36¾	Hilton Hotels	47⅜
64¾	30	Hitachi	59⅝
33⅛	21¼	Holiday Inns	31⅛
51⅜	34⅞	Holly Sugar	35⅛
70⅞	46¼	Homestake	47½
114¼	82	Honeywell	83⅜
15¼	12⅛	Hoover	12½
24⅝	15¾	Hoover Univl	22¾
19⅜	15¼	Hormel Geo	19⅛
50¼	32⅛	Hospital Corp	41½
19⅛	15⅞	Household Intl	16½
19⅞	16¾	Houston Inds	19⅛
55	41⅜	Houston Nt Gas	43½
31¼	23⅜	Hudson Bay Mng.	25⅞
44¼	35½	Hughes Tool	36¾
45⅝	33¼	Humana	40⅝
18⅝	12⅞	Husky (Oil)	13⅛
38⅝	20	Hutton (EF)	30⅝
40⅝	29	IC Inds	36¼
50½	36⅝	INA Corp	44⅝
20¾	15¼	IU Int	15¼
34½	24	Ideal Basic Ind	29⅛
6⅛	3¾	Ideal Toy	5⅜
7⅝	5⅛	ICI ADR	5½
28¼	20	Imp Corp. Amer.	21¼
23⅝	18⅝	INCO	19⅝
79⅞	64½	Ingersoll Rand	64½
35	27⅜	Inland Steel	30¼
41¾	32¾	Intel	33¾
40⅝	27¾	Interlake	40¼
43¾	30	InterNorth	32¾
71⅜	55⅝	IBM	56⅞
23	18¾	Intl' Flavours	20⅛
25⅞	15⅝	Int. Harvester	15⅝
10⅜	8¾	Int. Income Prop	9
51⅛	40⅞	Int. Paper	44⅞
19¾	14⅛	Int. Rectifier	15½
34¾	28⅛	Int. Tel & Tel	30⅜
72	46	Iowa Beef	71½
55¼	47	Irving Bank	52⅛
27¾	22¼	James (FS)	25⅝
29½	23⅝	Jeffn-Pilot	27¾
45⅛	33⅞	Jewel Cos	39
31⅞	24¼	Jim Walter	24⅝
28½	19¾	Johns Manville	20¾
34	27½	Johnson Contr	30½
38½	31	Johnson & Jns	33¾
12⅝	8⅞	Johnathn Logan	10¼
20½	16⅞	Jostens	20
41⅞	34¼	Joy Mfg	35⅜
23½	16⅝	K. Mart	20¾
26⅞	21⅝	Kaiser Alum	22
48½	38¼	Kaiser Steel	42½
34⅝	19⅝	Kaneb Services	22⅝
15¾	10⅞	Kaufman Brd	15½
27⅜	15	Kay Corp	18¼
24⅝	19⅝	Kellogg	21⅝
42	29¾	Kennametal	36
80½	62⅛	Kerr-McGee	66⅛
50½	40	Kidde	46¾
71½	53⅝	Kimberley-Clark	69¼
9⅛	6⅞	King's Dept. St.	7½
41	37	Knight Rdr. Nws.	37¾
27	20¾	Koppers	23⅜
7⅛	4⅞	Kroehler	6
27¾	19⅞	Kroger	25⅞
25⅞	18¼	LTV	20⅞
45⅝	36	Lanier Bus. Prod.	40⅝
42⅝	33⅞	Lear-Siegler	35¾
37⅞	27⅞	Leaseway Trans.	35¼
43⅞	30⅛	Lenox	40½
50	35	Levi Strauss	35⅛
35½	22⅞	Levitz Furntr.	33¼
29½	23	Libby Owens Fd.	26⅞
68⅝	60⅜	Lilly (Eli)	58⅜
46	37½	Lincoln Nat	41
81⅝	63⅜	Litton Inds	64½
44¾	25⅝	Lockheed	37½
106½	73½	Loews	98⅝
37	30	Lone Star Inds	34
36⅞	30¾	Longs Drug Strs.	32
50¾	30½	Louisiana Land	34¾
30¼	23⅜	Louisiana Pac	27
39⅞	13¼	Lowenstein	34
35	25½	Lubrizol	25½
16⅞	13⅝	Lucky Strs	15½
35½	22¼	M/A-Com. Inc	27¾
57	43⅝	MCA	48½
17¾	12	MacMillan	15
66	41½	Macy	60½
27⅞	19⅛	Madison Fund	20¼
39⅞	30½	Mfers Hanover	37⅞
44⅝	32⅝	Mapco	34¾
74⅞	45¼	Marathon Oil	57½
23	16	Marine Mid	20¼
45⅝	29⅞	Marriott	41⅞
41¼	29⅞	Marsh McLenn	38⅝
20¼	15	Marshall Field	15½
76½	65⅜	Martin Mtts	65⅞
43¼	28½	Maryland Cup	37⅞
42⅝	28½	Masco	37¾
4⅞	2¾	Massey-Fergn	3⅛
15⅞	13⅝	Mass Multi Corp.	15⅛
10¾	7⅝	Mattel	8⅛
31⅝	23⅞	May Dept Strs	30¼
29¾	24	Maytag	27¼
16⅝	12½	McCulloch	15⅛
40⅝	27½	McDe.mott (JR)	31
69½	49¾	McDonald's	62⅞
48⅞	35⅛	McDonnell Doug.	38⅞
44½	43	McDonough	44½
50½	33¼	McGraw Edison	42½
56	39⅜	McGraw-Hill	50¾
11¼	7½	McLean Trukg	10
32⅝	25⅛	Mead	29⅞
39	29⅜	Media Genl	36¾
43	32⅛	Medtronic	33½
39⅜	30½	Mellon Natl	37¼
47½	35⅞	Melville	43½
14½	10½	Memorex	10¾
50½	34	Mercantile Sts	49
102⅝	80	Merck	92½
66½	47⅞	Meredith	63
43⅞	26¼	Merrill Lynch	37

1981 High	1981 Low	Stock	July 2
12⅜	8	MGM	10⅜
149½	90¼	Metromedia	149¼
33¼	27⅝	Milton Bradley	30⅜
64¼	56	Minnesota MM	56⅞
102	76¼	Missouri Pac	80
40⅞	27⅜	Mobil	29⅛
13⅝	9¾	Modern Merchg.	12¼
14⅝	10	Mohasco	14¼
26	18½	Monarch M/T	24¼
85	67¾	Monsanto	79
39⅞	31½	Moore McCmrk	34
63¾	49½	Morgan (JP)	57¾
68½	60	Motorola	68
16⅝	14⅞	Munsingwear	16¾
22	15⅛	Murphy (GC)	21
49¾	29⅛	Murphy Oil	30⅜
32⅝	26¼	Nabisco	28⅝
57⅝	47⅛	Nalco Chem	51
22⅛	19	Napco Industries	20½
26¾	19⅛	Nat. Can	23⅛
29⅜	24⅞	Nat. Detroit	28⅛
29¾	25¼	Nat. Dist. Chem	25¾
31½	20½	Nat. Gypsum	28¾
27⅛	18⅛	Nat. Medical Ent	22⅞
40¾	25	Nat. Semicductr.	26
26¾	20¼	Nat. Service Ind.	24½
16⅛	14	Nat. Standard	15¾
30⅞	24½	Nat. Steel	25⅝
39¼	24⅛	Natomas	25
18	13¼	NCNB	16⅞
75	57½	NCR	63
24½	19	New England El.	23⅞
16⅞	14	NY State E & G	15¾
37¾	28	NY Times	36¾
69⅛	43⅝	Newmont Mining	65⅞
13¼	10⅞	Niag. Mohawk	11⅞
42¾	33¼	NICOR Inc	36⅞
46⅝	32⅝	Nielson (AC) A	43½
42	31⅜	NL Industries	33⅝
36	23	NLT	26¾
49⅞	40½	Norfolk & Westn	49⅞
36½	27	Nth. Am. Coal	27
59¼	37⅛	Nth. Am./Philips	46
26⅝	20	Nthn. State Pwr.	25
9¼	6⅝	Northgate Exp	6⅝
62½	44½	Northrop	45¾
38⅝	24¾	Nwest Airlines	31½
32¼	27⅛	Nwest Bancorp	30
54⅝	35¾	Nwest Inds	47⅝
10⅝	9⅜	Nwestn Mutual	10
29	21⅝	Nwestd Steel W.	25¾
61⅝	46¾	Norton	46¾
18⅝	14⅜	Norton Simon	16⅛
34⅞	27⅝	Occidental Pet	29⅝
50½	28¼	Ocean Drill Exp.	28⅝
39⅛	30¾	Ogden	34½
35	25¼	Ogilvy & Mrth	33¼
13½	11¾	Ohio Edison	12⅜
26¼	19⅝	Olin	23⅜
25¾	20⅛	Omark	22
40⅝	29½	Oneok	30⅛
21⅝	12½	Outboard Marine	19
33¾	26	Overseas Ship	26
30¾	25⅝	Owens-Corning	28⅝
32⅝	24	Owens-Illinois	29¾
47½	35¼	PHH Group	44¼
57¾	36¾	PPG Inds	47
18⅞	14½	Pabst Brewing	15¾
23⅝	19¾	Pac. Gas & Elect	20⅞
27	20	Pac. Lighting	26⅞
33⅞	26⅝	Pac. Lumber	28
15½	12⅛	Pac. Tel. & Tel	13⅛
28½	17⅝	Palm Beach	24¾
5⅛	4¼	Pan Am Air	4¼
46	35⅛	Pan. Hand Pipe	35⅛
36	22¼	Parker Drilling	25¼
57⅞	28¼	Parker Hanfn	35⅝
8¾	5⅝	Peabody Intl	6⅛
36½	21⅝	Penney (JC)	32⅝
50⅝	35⅝	Pennzoil	47⅛
51⅛	39⅛	Peoples Gas	43⅞
37⅛	27½	Pepsico	34
36⅝	25⅝	Perkin-Elmer	27⅛
35¾	25¼	Petrie Stores	33⅝
25¼	17	Petrolane	18
54⅝	46⅞	Pfizer	46⅞
48½	31¾	Phelps Dodge	39¾
37	25⅞	Philbro	29
14	13	Phila. Elect	13⅝
55½	42¼	Philip Morris	48½
58⅝	34⅞	Phillips Pet	37⅝
45⅛	37¾	Pillsbury	41⅝
50	21¾	Pioneer Corp	25¾
35	28½	Pitney-Bowes	32½
29⅝	21⅝	Pittston	26½
8⅞	6½	Planning Rsch	7⅜
73¾	58	Plessey	63½
33⅛	23½	Polaroid	28⅞
48⅞	36½	Potlatch	39⅞
25⅝	19¾	Prentice-Hall	25¼
77⅞	65⅛	Procter Gamble	75⅛
19⅞	17⅛	Pub. Serv. E & G.	18⅛
22¼	18⅛	Pub. S. Indiana	21
25¾	15	Purex	22½
73¼	34	Purolator	66⅝
37	30½	Quaker Oats	33⅛
43¼	20¾	Quanex	37¼
8⅞	7⅛	Questor	8½
52¼	22½	RCA	22⅝
14¼	10⅜	Ralston Purina	12⅞
11¾	6⅝	Ramada Inns	9¾
4⅝	3⅝	Rank Org. ADR	3⅝
54⅛	40½	Raytheon	44⅞
54⅝	28⅜	Reading Bates	29⅞
14⅞	8¼	Redman Inds	12
41½	29¾	Reeves Bros	59¼
15⅞	11⅝	Reichhold Chem.	13¼
91⅝	67	Reliance Group	86
31⅞	23⅜	Republic Steel	27¾
45½	34¼	Rep of Texas	43⅛
18⅝	13¾	Resch Cottrell	13¾
31⅝	22¼	Resort Int A	22¼
40¾	29¾	Revco (DS)	37
25¼	16	Revere Copper	23¾
50¾	40¾	Revlon	42⅛
20½	16½	Rexnord	17¾
48½	42¼	Reynolds (RJ)	44¾
39¼	32½	Reynolds Mtls	33
36	23¼	Rite Aid	32¾
50½	35½	Roadway Exps	46½
14⅝	10½	Robins (AH)	12⅝
14	12	Rochester Gas	12½
45⅝	35	Rockwell Intl	37⅜
71¾	46¾	Rohm & Haas	69¾
22⅝	17⅛	Rollins	17⅝
49	34	Rolm	34
14⅝	10¼	Roper Corp	14½
23	13⅞	Rowan	15⅝
16	12⅝	Royal Crown	15⅜
49¼	31⅝	Royal Dutch	31¼
39	23⅝	Rubbermaid	34
17½	14⅞	Russel Styr	16½
26⅝	20½	Ryan Homes	24
37⅞	25⅞	Ryder System	34⅜
30½	22⅛	SFN Companies	23⅛
39	30	SPS Technol'gies	32½
65½	43½	Sabine Corp	47
41⅝	31½	Safeco	40¾
37½	29½	Safewa Stores	30⅜
55½	26½	St. Joe Minerals	41⅛
51	37⅛	St. Paul Cos	45⅛
42⅜	32⅝	St. Regis Paper	34¾
36	25	Sante Fe Inds	25⅜
31⅛	20⅝	Sante Fe Intl	22⅛
10¼	8⅝	Saul Invest	9
7⅝	5⅛	Saxon Inds	5⅝
42	34	Scheinrg Plough	34⅝

1981 High	1981 Low	Stock	July 2
12½	7⅞	Schlitz Brew J	10⅛
116⅞	88¼	Schlumberger	91⅝
31¼	24½	SCM	26⅝
27⅛	18	Scott Paper	19¾
15⅛	13⅛	Scudder Duo V	14⅜
27⅛	19⅛	Sea Contrs	23⅜
61	51	Seagram	55½
35	21⅝	Sealed Power	32¾
33¾	25⅝	Searle (GD)	30
24⅛	15	Sears Roebuck	18⅝
43½	34⅛	Security Pac	39
45	25	Sedco	28⅞
58	38½	Shell Oil	44
44	27	Shell Trans	28
23⅝	17⅛	Sherwin-Wms	20⅛
35¼	23¼	Signal	29¼
44¼	36	Signode	41⅝
11¾	8⅝	Simplicity Patt	11
24⅛	11⅝	Singer	19¾
19¼	12⅝	Skyline	16
65¼	44⅞	Smith Intl	46⅛
88	70½	Smith Kline	75½
45	27½	Sonesta Intl	—
25⅞	14⅞	Sony	20⅝
23½	18¼	Southeast Bankg	20⅞
27⅞	23½	Sth. Cal. Edison	24½
12⅞	11	Southern Co	12
70⅞	57¼	Sthn. Nat. Res	59¼
42⅛	34⅛	Sthn N. Eng. Tel.	41¼
54	37¼	Sthn Pacific	47⅞
93½	74	Sth Railway	87
28	20¾	Southland	25½
43⅞	35	SW Bancshares	41½
66	47	Sperry Corp	45½
26⅝	17	Spring Mills	22¾
37¼	26¼	Square D	31
37½	28⅝	Squibb	31⅞
31¼	26⅜	Standard Brands	27¼
34½	24⅝	St'd Brds Pant	30⅝
57¾	35½	Std Oil California	38⅛
79½	49¾	Std Oil Indiana	55
71⅞	43⅛	Std Oil Ohio	47
21	17⅛	Stanley Wks	18¼
27⅜	22⅝	Stauffer Chem	25
26⅛	19¼	Sterling Drug	21⅝
17½	13½	Stevens (JP)	15⅜
28⅝	22¼	Stokely Van K	25¾
35⅝	17¾	Storage Tech	30
50¼	32⅛	Sun Co	34¼
23	16⅜	Sunbeam	22¼
56⅜	46	Sundstrand	46½
230¾	175	Superior Oil	186½
37½	28⅝	Super Val Strs	36½
71	54	Syntex	54
65¼	54	TRW	58¾
31¾	25⅛	Taft	30⅝
35⅝	27⅝	Tampax	29
38¼	20⅞	Tandy	31
173	119⅝	Teledyne	160¾
61¼	50¼	Tektronix	53½
51⅜	37⅛	Tenneco	37¼
22½	16⅛	Tesora Pet	18¾
49⅛	33⅜	Texaco	34½
43	31¾	Texas Comm. Bk	39⅝
78⅝	45	Texas Eastern	50
40	32	Texas Gas Trn	32½
125	94⅛	Texas Instrmts	94⅛
38⅞	28¾	Texas Oil & Gas	33⅞
20¾	16¼	Texas Utilities	20⅛
48½	24⅛	Texasgulf	47
38½	28	Textron	34
37¾	28½	Thermo Electro	28¾
64¾	45⅝	Thomas Betts	58
49¾	32¾	Tidewater	32¾
26	19	Tiger Intl	21
81⅞	53¼	Time Inc	69⅝
58¼	40¼	Times Mirror	54¼
78	59¾	Timken	72¼
35	22¼	Tipperary	25½
39½	18½	Tonka	25⅝
23⅝	16⅛	Total Pet	17⅝
27¼	21	Trane	25¼
26¼	17½	Transamerica	23⅛
30¼	24½	Transway	28
28⅛	19⅛	Trans World	23½
53¾	38	Travelers	46⅝
16	8⅝	Tricentrol	9⅞
24⅝	19⅞	Tri Continental	22
28	19⅞	Triton Oil Gas	32
28⅜	16⅛	Tyler	36⅛
31⅛	18	UAL	25⅛
12⅛	10⅜	UMC Inds	10½
16	11	UNC Resources	11⅛
62	54	Unilever N.V.	54½
63⅛	46¾	Union Camp	55⅛
62⅝	50⅝	Union Carbide	57
10⅝	8	Union Commerce	9¼
45⅛	28⅞	Union Oil Cal	34¼
78	60	Union Pacific	55¼
10⅛	5⅝	Uniroyal	9¼
17	12⅝	Untd Brands	12⅝
49⅛	38¼	Utd. Energy Res.	41¼
50¾	37⅜	US Fidelity G	47⅜
38¾	32½	US Gypsum	35½
31⅜	24¾	US Home	25¾
11⅝	8⅛	US Inds	11⅛
49⅞	30	US Shoe	45½
36⅜	25⅝	US Steel	28⅝
36¼	25⅛	US Surgical	32
47⅛	36	US Tobacco	43⅛
30⅝	21¼	US Trust	28½
66	51½	Utd. Technolgs	54½
22¼	15⅛	Utd. Telecomms	20½
69	56⅝	Upjohn	56⅝
37⅛	22⅛	VF	34⅞
31	23½	Varian Assocs	27½
21	15⅛	Vernitron	15⅛
12¼	10⅛	Virginia EP	11¾
55¼	40¼	Vulcan Matrls	51¼
29	20½	Walker (H) Res	28¼
48½	28¾	Wallace Murray	47½
39½	28¼	Wal-Mart Stores	36½
27	15⅛	Warnaco	23⅞
57¼	34	Warner Comms	50⅛
24⅞	20	Warner-Lambt	22¼
28½	19⅝	Washington Post	26¼
40½	26⅝	Waste Mangt	36⅛
37⅞	27⅛	Weis Mkts	37
35⅝	26	Wells Fargo	32¼
51⅝	42½	W. Point Peppi	49
11⅝	8	Western Airlines	11⅛
44¼	33	Westrn Bancorp	41
28⅜	19⅝	Westn. Nth. Amr.	22½
33¾	27	Westinghouse	30
30½	18⅝	Westvace	26
40	32	Weyerhaeuser	34⅞
66	48½	Wheelabratr F	51⅝
39¾	19⅝	Wheeling Pitts	35⅛
30	18⅞	Whirlpool	27½
38	33¾	White Consoltd.	32⅞
4⅝	1½	White Motor	1½
50⅞	26⅝	Whittaker	41¼
17	13½	Wickes	14¼
46⅝	26¼	Williams Co.	26⅝
37	26⅝	Winn-Dixie Str	34⅞
6¼	2⅝	Winnebago	4½
26	20½	Wisc Elec Power	24⅝
27½	23¾	Woolworth	25
42½	32	Wrigley	39½
16¼	11⅛	Wyly	12⅛
65⅞	51½	Xerox	61½
21	15⅛	Yellow Frt Sys	18⅛
38⅜	22⅛	Zapata	25½
21¼	14⅞	Zenith Radio	18½

CANADA

1981 High	1981 Low	Stock	July 3
27¼	19¾	AMCA Intl	24⅝
32	22⅝	Abitibi	26¼
18¼	9½	Agnico Eagle	9½
46½	33⅛	Alcan Alumin	33⅛
48⅞	37¼	Algoma Steel	43
43	27½	Asbestos	40
34	27½	Bk Montreal	28⅛
34	26⅜	Bk Nova Scotia	26⅜
13¾	8¾	Basic Resources	10¼
20	18	Bell Canada	18¾
22¾	16¾	Bow Valley	22
48¾	37	BP Canada	48¼
37	31¾	Brascan A	34⅞
12	8⅜	Brinco	8½
23¼	14¾	B. C. Forest	17¼
52½	22¾	Cadillac Fairview	48
43	25	Camflo Mines	25
16⅜	13¼	Can Cement	14⅝
42¾	32	Can NW Lands	40½
36¾	32½	Can Packers	34⅝
30	19	Can Perm Mtg	50
29½	26⅝	Can Trusco	29
31⅞	27	Can Imp Bank	28⅛
37	35	Cdn Inds	36⅛
50½	40	Cdn Pacific	44⅝
27⅝	22½	Can P. Ent	23¼
55	29	Cdn Tire	33
11	7⅝	Cherokee Res	8⅞
25⅞	20¾	Chieftain	25
72	60¾	Cominco	62¼
29½	22¼	Cons Bathst A	26⅜
25¾	19½	Coseka Res	19½
14¾	9¼	Costain	13¾
13⅝	10¼	Daon Devel	11⅞
58⅜	43⅛	Denison Mines	45⅜
28¾	21⅛	Dome Mines	24⅞
25⅝	14¼	Dome Petroleum	24¼
49½	40	Dom Foundries A	45¼
24½	21	Dom Stores	22¼
37½	27⅞	Domtar	32½
116	87½	Falcon Nickel	100
49	34⅝	Genstar	34⅝
260	195	Gt.-West Life	250
29	23	Gulf Canada	28⅝
12¼	5⅝	Gulfstream Res	6
28½	18⅛	Hawk Sid. Can	19¾
49½	42¼	Hollinger Argus	42¼
37	29¾	Hudson Bay Mng.	30¾
29⅛	23½	Hudson's Bay	29
37¾	21	do. Oil & Gas	37½
21¾	15⅜	Husky Oil	16½
13	10¼	IAC	10¼
38	30⅜	Imasco	36⅞
37⅜	30¾	Imp Oil A	36⅜
28⅛	21⅞	Inco	23⅝
19	14½	Indal	17½
16¾	14⅜	Inter. Pipe	15¼
52½	35⅛	Mac Bloedel	41¼
11½	9	Marks & Spencer	10¾
5.87	3.25	Massey Ferg	3.45
78	55	McIntyre Mines	58½
12⅛	8	Merland Explor	12⅛
48	18⅞	Mitel Corp	37¼
46	39½	Moore Corp	43⅛
15	9⅞	Nat. Sea Prods A	10¾
34⅞	26⅛	Noranda Mines	32⅞
54	32¾	Nthn. Telecom	48
23½	17	Oakwood Pet	22¼
4.05	3.00	Pacific Copper	3.30
96⅛	85½	Pan can Petrol	92
62	43⅛	Patino	61½
26¾	19¾	Placer Dev	20¼
24	21	Power Corp	20¾
7.3	3.30	Quebec Strgn	3.50
32¾	15⅝	Ranger Oil	15⅛
12⅞	11	Read Stenhs A	11½
40¾	31	Rio Algom	39⅜
32	27	Royal Bank	27⅝
22½	18⅜	Royal Trustco A	19¼
17½	13½	Sceptre Res	15½
72⅛	61⅝	Seagram	66½
28⅝	24	Snell can Oil	27⅛
40⅛	33⅞	Steel of Can A	35
21⅞	16¼	Teck B	16¼
38⅞	22⅞	Texaco Canada	36¼
24	20⅛	Thomson NewsA	22½
35⅜	29⅝	Toronto Dom Bk	29⅝
27⅝	22¼	Transcan Pipe	24¾
13¼	11¼	Trans Mntn. Oil A	11¼
23⅜	17⅛	Utd Sisco Mines	17⅛
35	25⅛	Walker (H) Res	33⅝
7.75	4.25	Warrior Res	4.25
15¼	13½	Westcoast Trans	13½
38¼	30¼	Weston (Geo)	34⅝

GERMANY

1981 High	1981 Low	July 3	Price Dm.
74.5	42.7	AEG Telef	44.5
499	452	Allianz Vers	489
140.3	114.1	BASF	137xd
140.2	107.9	BAYER	133.5xd
220.0	180.1	Bayer Hypo	198.6
302.0	268	Bayer Verein	279
203.5	179.0	BHF Bank	199
201	143.5	BMW	201
284	238.0	Brown Boveri	284
146.5	126.5	Commerzbank	144
67.8	52.5	Conti Gummi	59.7
361	257	Daimler Benz	361
263.5	227.5	Degussa	257
162	127.0	Demag	150
217.5	170.0	D'sche Babcock	217.5
297	263.5	Deutsche Bank	282
168.5	138.0	DU Schult	161
180	137.3	Dresdner Bank	156
137.8	118	Dyck Zement	130
226.8	178.8	GHH	226.8
77.9	60.1	Hapag Lloyd	67
132	111.5	Hoechst	127.6
27.8	21	Hoesch	21
513	365.5	Holzmann (P)	491
150.0	132.5	Horten	138.5
280.5	212.5	Kali und Salz	246.2
234	177.5	Karstadt	234
184.5	155.0	Kaufhof	177
204	170.5	KHD	204
62	42.0	Kloeckner	47.8
76.0	51	Krupp	53
353	297.0	Linde	353
76.5	57.0	Lufthansa	65
211	163.5	MAN	211
159	122.0	Mannesmann	154.5
328.5	220.0	Mercedes Hlg	328.5
337.8	309.0	Metallgesell	323.9
698	610.0	Muench Ruck	637
165.8	125.0	Preussag	165.8
181	162.8	Rhein West Elect	176.5
386	287.0	Rosenthal	333
394	219.5	Schering	294
269.0	244	Siemens	258.3
77.0	62.0	Thyssen	71.5
190.5	161.5	Varta	183.5
137.2	121.5	Veba	129.8
286.0	262	Verein-West	270
180.0	136.0	Volkswagen	170

HOLLAND

1981 High	1981 Low	July 3	Price Fls
86	68	ACF Holding	82.50
79.3	67.2	Ahold	71.50
27	15.7	AKZO	25.7
304.8	269.5	ABN	302
96.3	81.5	AMEV	89
60.1	50.5	AMRO	53.7
222	182	Bredero Cert	186
88.7	73	Bos Kalis	73
62	53.7	Burhmann-Tet	54.5
38.3	28.1	Caland Hldgs	35
163	113.5	Elsevier	113.5
146.5	135	Ennia	135
77.0	70	Euro ComTst	75
71.6	49.8	Gist. Brocades	69.6
60.5	49.6	Heineken	50
20.4	14	Hoogovens	17.9
13.4	9.2	Hunter Douglas	10.9
22	12.6	Int-Muller	18.3
142	56	KLM	117.5
26.3	15.1	Naarden	24.7
126.8	107.8	Nat. Ned Cert	117.5
49.8	44.1	Ned Cred Bank	46.7
202	152.5	Ned Mid Bank	165
142.5	92	Nedlloyd	134
129	85.2	Oce Grinten	126.8
36.7	29	Ommeren (Van)	32.8
49.3	35	Pakhoed	42.8
24.7	15	Phillips	23.6
53.6	36	Rijn-Schelde	48
245	209.5	Robeco	240
123.8	109.9	Rodamco	117.3
262.4	203.1	Rolinco	258
136.3	117.2	Rorento	136.5
106.0	80.3	Royal Dutch	84.3
144	109.6	Slavenburg's	115.5
250	198	Tokyo Pac Hg	240
157	123.8	Unilever	146.8
158.8	130	Viking Res	144
50	26.1	VMF-Stork	49.8
79.5	59.8	VNU	65.1
33	19.9	Volker Steven	29.8
220	110	West Utr Bank	118

NORWAY

1981 High	1981 Low	July 3	Price Kroner
123	102.5	Bergens Bank	106
113	77	Borregaard	99
130	111	Creditbank	122.5
84	59	Elkem	69
485	415	Kosmos	450
537.5	360	Norsk Hydro	372.5
185	136	Storebrand	154

ITALY

1981 High	1981 Low	July 3	Price Lire
1360	650	ANIC	800
174,100	102,200	Assicur Gen	155,025
196,000	44,000	Banca Com'le	181,009
560	350	Bastogi Fin	355
10,640	4,960	Centrale	6,200
25,000	13,250	Credito Varesino	17,010
2,610	1,749	Fiat	1,941
104	54	Finsider	70
6,050	3,890	Invest	4,730
61,900	31,000	Italcement	39,800
330	281	Italsider	292
288.25	174	Montedison	174
5,150	3,450	Olivetti	3,450
5,650	3,501	Pirelli Co	3,760
2,740	1,730	Pirelli SpA	1,975
1,140	850	Snia Viscosa	850
1,250	850	do. do. Priv.	941
59,400	22,300	Toro Assic	43,200
68,890	18,199	do. Pref.	38,000

SWEDEN

1981 High	1981 Low	July 3	Price Kronor
246	193	AGA	245
178	132	Alfa-Laval	170
127	71	ASEA	125
365	230	Astra	340
108	76.5	Atlas Copco	106
300	235	Boliden	260
258	188	Cellulosa	250
108	76.5	Electrolux B	108
178	104	Ericsson	169
177	125	Esselte	176
124	78	Fagersta	115
370	205	Fortia	362
176	104	Mo och Dom	170
147	76	Saab-Scania	143
275	186	Sandvik	265
477	315	Skandia	477
194	131	Skan Enskilda	194
134	84.5	SKF	132
300	207	St. Kopparberg	300
98	64	Sven Handelsbn	98
135	98	Swedish Match	121
123	65	Volvo	122

SWITZERLAND

1981 High	1981 Low	July 3	Price Frs.
1,190	940	Alusuisse	1,010
1,500	1,285	Brown Boveri	1,380
1,270	970	Ciba-Geigy	1,260
975	755	do. (Part Certs)	950
2,795	2,105	Credit Suisse	2,150
2,615	2,225	Elektrowatt	2,470
765	625	Fischer (Geo)	635
87,500	71,250	Hoff-Roche PtCts	79,000
8,250	7,100	Hoff-Roche 1/10	7,950
6,500	5,300	Interfood	5,500
1,485	1,200	Jelmoli	1,260
1,690	1,325	Landis & Gyr	1,360
3,260	2,980	Nestle	3,175
2,800	2,050	Oer-Buhrle	2,160
272	238	Pirelli	243
4,600	3,350	Sandoz (Br)	4,550
565	430	Sandoz (Pt Cts)	560
285	250	Schindler (PtCts)	265
753	628	Swissair	723
395	318	Swiss Bank	331
7,425	6,350	Swiss Reinsce	7,150
1,825	1,470	Swiss Volksbk	1,550
3,635	3,025	Union Bank	3,060
2,820	2,360	Winterthur	2,490
16,975	14,800	Zurich Ins	16,200

AUSTRALIA

1981 High	1981 Low	July 3	Price Aust. $
5.60	4.24	ANZ Group	5.30
1.46	0.90	Acrow Aust	1.35
1.95	0.70	Allstate Expl	0.70
2.00	1.50	Ampol Pet	1.58
2.50	2.05	Assoc. Pulp Pap	2.35
0.26	0.17	Audimco	0.22
2.40	1.95	Aust. Cons. Ind	1.95
2.50	1.40	Aust Guarant	2.10
3.90	3.05	Aust. Nat. Inds	3.60
2.40	2.05	Aust. Paper	2.15
3.55	2.90	Bank NSW	3.20
2.27	1.70	Blue Metal	1.82
4.15	2.60	Bond Hldgs	3.75
4.00	3.25	Boral	3.65
2.05	1.43	Bl'ville Copper	1.58
3.25	2.90	Brambles Inds	3.00
8.08	5.40	Bridge Oil	7.06
16.75	12.25	BHP	15.00
0.40	0.21	Brunswick Oil	0.24
7.00	4.12	CRA	4.35
7.50	6.00	CSR	6.08
3.02	1.90	Carlton & Utd	2.50
3.85	2.85	Castlemaine Tys	3.10
0.70	0.35	Cluff Oil (Aust)	0.57
0.46	0.23	Do. Opts	0.38
1.85	1.35	Cockburn Cemt	1.75
2.73	2.30	Coles (G.J.)	2.70
3.00	2.23	Comalco	2.25
8.50	5.80	Cons Gold	6.50
6.40	5.15	Containers	6.40
4.70	3.05	Costain	3.90
8.00	5.10	Crusader oil	7.70
1.40	1.04	Dunlop	1.34
4.75	2.85	Elder Smith GM	4.65
0.80	0.50	Endeavour Res	0.58
1.85	1.40	Gen Prop Trust	1.68
4.65	2.85	Hamersley	4.35
9.80	7.30	Hartogen Energy	8.20
5.90	1.30	Hooker	1.73
2.50	1.96	ICI Aust	1.98
2.55	1.20	Jennings	1.45
2.00	0.90	Jimb'lana (50cFP)	0.90
1.65	1.40	Jones (D)	1.60
10.51	0.19	Kia Ora Gold	0.20
1.20	0.51	Lennard Oil	0.66
5.06	3.65	MIM	4.30
8.70	4.60	Meekatharra Ms	5.16
0.55	0.32	Meridian Oil	0.50
0.56	0.24	Monarch Pet	0.35
2.25	1.54	Myer Emp	2.26
3.62	2.65	Nat Bank	2.98
4.00	3.00	News	3.00
1.70	1.28	Nicholas Int	1.65
4.15	3.00	North Bkn Hill	3.32
2.78	2.05	Oakbridge	2.40
1.70	0.80	Otter Expl	1.35
11.90	6.20	Pancon	6.80
0.41	0.14	Pan Pacific	0.40
2.55	2.12	Pioneer Conc	2.16
0.68	0.30	Queen Marg't G	0.30
2.96	2.36	Reckitt & Coln	2.48
8.06	5.16	Santos	7.00
1.95	1.31	Sleigh (H.C.)	1.86
0.80	0.40	Southland M'n'g	0.71
0.80	0.40	Spargos Expl	0.46
2.70	2.22	Thos Natwide	2.56
2.93	2.30	Tooth	2.60
4.10	3.10	UMAL Cons	3.70
0.86	0.35	Valiant Consdt	0.36
1.14	0.78	Waltons	0.85
5.90	4.48	Western Mining	5.44
3.55	2.04	Woodside Petrol	2.08
2.30	1.88	Woolworths	1.86
4.30	3.45	Wormald Intl	3.50

HONG KONG

1981 High	1981 Low	July 3	Price H.K.$
38.75	25.5	Cheung Kong	32
5.55	2.20	Cosmo Prop	3.55
10.60	9.10	Cross Harbour	9.50
176	113	Hang Seng Bank	146
8.75	6.10	HK Electric	6.60
10.60	7.60	HK Kowloon Wh	8.40
14.8	10.00	HK Land	11.6
20.1	14.07	HK Shanghai Bk	16.8
28.70	20.00	HK Telephone	26.6
21.70	14.10	Hutchison Wpa	21.7
27.70	19.0	Jardine Math	23.7
7.50	5.05	New World Dev	5.95
7.00	5.15	O'seas Trust Bk	5.55
21.60	13.70	SHK Prop	18.40
20.3	11.70	Swire Pac A	18.80
9.10	6.25	Wheel'k Mard A	6.45
5.60	4.10	Wheel'k Marit'e	5.10
5.40	3.22	World Int Hldgs	4.42

JAPAN

1981 High	1981 Low	July 6	Price Yen
1,020	745	Ajinomoto	945
911	549	Amada	868
680	378	Asahi Glass	658
620	452	Bridgestone	550
1,580	710	Canon	1,540
452	335	Citizen	420
775	615	Daiei	659
500	407	DKBO	490
873	637	Dai Nippon Ptg	868
357	255	Daiwa House	274
420	350	Daiwa Seiko	438
493	365	Ebara	481
1,370	803	Eisai	843
491	399	Fuji Bank	410
1,840	870	Fuji Film	1,840
1,160	880	Fujisawa	1,090
6,970	4,910	Fujitsu Fanuc	6,400
1,930	1,270	Green Cross	1,550
633	461	Hasegawa	606
617	528	Heiwa Rl Est	558
720	310	Hitachi	671
630	502	Hitachi Koki	585
1,280	511	Honda	1,110
1,120	819	House Food	1,080
993	810	Hoya	970
429	366	Itoh (C)	393
556	420	Ito-Ham	453
1,380	1,020	Ito-Yokado	1,210
740	510	JACCS	748
2,510	2,280	JAL	2,360
753	660	Jusco	753
344	270	Kajima	310
620	454	Kao Soap	571
900	619	Kashiyama	900
439	344	Kikkoman	375
555	410	Kirin	476
1,360	950	Kokuyo	1,350
475	332	Komatsu	444
716	507	Komatsu F'lft	716
835	503	Konishroku	820
361	341	Kubota	347
445	341	Kumagai	352
4,900	3,140	Kyoto Ceramic	4,130
564	356	Lion	433
658	480	Maeda Cons	545
1,000	851	Makita	921
399	339	Marubeni	370
798	600	Marudai	757
1,020	728	Marui	990
1,820	795	Matsushita	1,510
740	522	M'ta Elec Works	648
490	398	M'bishi Bank	401
739	623	M'bishi Corp	682
404	209	M'bishi Elec	382
496	391	M'bishi Rl East	429
322	186	MHI	290
353	298	Mitsui Co	383
616	497	Mitsui Rl Est	579
502	427	Mitsukoshi	471
477	408	NGK Insulators	430
1,950	870	Nippon Denso	1,610
1,040	777	Nippon Gakki	840
505	400	Nippon Meat	438
1,500	865	Nippon Oil	942
1,010	680	Nippon Shinpan	1,010
231	139	Nippon Steel	200
238	210	Nippon Suisan	214
4,950	4,080	NTV	4,250
1,090	700	Nissan Motor	1,050
450	331	Nisshin Flour	360
204	142	Nisshin Steel	201
601	368	Nomura	618
343	285	NYK	297
1,770	1,250	Olympus	1,640
1,360	1,000	Orient	1,320
4,160	2,560	Pioneer	3,690
872	600	Renown	860
975	595	Ricoh	958
700	379	Sanyo Elect	626
270	231	Sapporo	244
730	605	Sekisui Prefab	710
911	645	Sharp	891
941	807	Shiseido	860
5,780	3,020	Sony	5,750
546	430	Stanley	508
351	261	S'tomo Marine	300
730	555	Taihei Dengyo	505
232	199	Taisei Corp	211
599	530	Taisho Pharm	559
1,050	618	Takeda	925
5,490	3,190	TDK	5,150
222	148	Teijin	213
1,190	661	Teikoku Oil	664
565	405	TBS	431
801	606	Tokio Marine	740
995	890	Tokyo Elect. Pwr.	960
132	111	Tokyo Gas	117
625	494	Tokyo Sanyo	565
241	215	Tokyu Corp	215
426	214	Toshiba	396
560	470	TOTO	477
472	390	Toyo Seikan	456
1,490	724	Toyota Motor	1,470
3,940	2,400	Victor	3,770
860	710	Wacoal	840
1,210	722	Yamaha	1,070
640	518	Yamazaki	601
378	272	Yasuda Fire	320
705	497	Yokogawa Bgde	633

SOUTH AFRICA

1981 High	1981 Low	July 3	Price Rand
4.15	2.85	Abercom	3.95
9.7	7.40	AE&CI	7.95
18.00	14.40	Anglo Am. Cp.	14.7
133.0	90.00	Anglo Am. Gold	92
11.2	9.10	Barlow Rand	9.10
54.00	34.25	Buffels	34.5
6.80	4.85	CNA Invests	6.2
2.65	1.90	Currie Finance	2.2
10.90	8.55	De Beers	8.58
36.80	24.75	Driefontein	26.5
65.00	38.5	FS Geduld	39.5
101	84.0	Gold Fields SA	84.5
5.40	4.00	Highveld Steel	5.05
8.10	5.70	Huletts	6.9
43.00	28.00	Kloof	29.25xd
6.65	5.30	Nedbank	5.55
19.5	15.00	OK Bazaars	17.15
3.45	2.80	Protea Hldgs	2.80
10.0	6.35	Rembrandt	9.35
3.95	3.00	Rennies	3.4
6.80	4.9	Rust Plat	4.9
2.80	2.00	Sage Hldgs	2.0
4.33	3.25	SA Brews	3.85
19.35	15.75	Smith CG Sugar	16.25
2.45	1.55	Sorec	1.9
19	16.00	Tiger Oats	18.25
3.05	2.50	Unisec	2.55

Financial Rand US$83¼
(Discount of 25¼%)

BRAZIL

1981 High	1981 Low	July 3	Price Cruz
1.90	0.76	Acesita	1.00
5.60	3.05	Banco Brasil	5.55
1.57	1.40	Banco Itau	1.55
3.55	2.35	Belgo-Min	2.70
3.50	2.80	Lojas Amer	3.40
3.48	2.12	Petrobras PP	3.45
1.70	1.05	Pirelli OP	1.10
4.50	2.05	Souza Cruz	4.50
7.80	5.58	Unip PE	5.85
10.00	4.50	Vale Rio Doce	9.50

TEL AVIV

Company	Prices July 5 1981	Change on the week
Banking, Insurance and Finance		
Bank Leumi	1,260	+25
IDB Bankholding	1,679	+27
Bank Hapoalim Br.	1,625	+62
Union Bank Israel Br.	1,186	+45
United Mizrahi Bank	630	+55
Hassneh Insurance Br.	590	+109
Gen. Mort. Bank Br.	740	+60
"Telehor" Israel Mort. Bank Br.	—	—
Land Development		
Africa Israel Inv. IE10	2,860	+370
Israel Land Dev. Br.	1,327	+177
Property and Building	860	+99
Public Utility		
Israel Electric Corp.	341	+41
Investment Companies		
Bank Leumi Invest.	582	+62
"Clal" Israel Invest.	780	+102
Discount Invest.	685	+89
Commercial and Industrial		
Alliance Tire and Rubber	5,800	+500
Elco Br.	521	+78
Argaman Textile Br.	450	+35
"Ata" Textile "B"	342	+79
Amer. Israeli Ppr. Mills	1,700	+210
Assis	690	+130
Elite	1,660	+215
Teva Reg.	1,140	+150
Fuel and Oil		
Delek	670	+110

Source: Bank Leumi le Israel BM, Tel Aviv.

NOTES: Prices on this page are as quoted on the individual exchanges and are last-traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

AUSTRIA

1981 High	1981 Low	July 3	Price %
336	326	Creditanstalt	336
336	322	Landerbank	322
276	243	Perlmooser	250
110	98	Semperit	101
251	204	Steyr Daimler	210
267	225	Veitscher Mag	231

BELGIUM/LUXEMBOURG

1981 High	1981 Low	July 3	Price Fls.
1348	1040	ARBED	1,136
5000	4200	Banq Ind A Lux	4,200
1450	1150	Bekaert B	1,334
1,050	826	Cimert CBR	996
206	145	Cockerill	160
1800	1202	EBES	1,350
3380	2635	Electrobel	2,940
3500	1350	Fabrique Nat	2,005
2110	1,550	GB-Inno	1,890
1200	900	GBL (Bruxl)	1,180
1470	1183	Gevaert	1,362
2680	2100	Hoboken	2,145
1366	986	Intercom	1,048
5090	4275	Kredietbank	4,500
6050	4660	Pan Holding	5,575xd
5,200	3,660	Petrofina	3,990
4,660	3,600	Royale Belge	4,010
2,275	1,545	Soc Gen Banq	1,800
1,290	870	Soc Gen Belge	920
3,040	2,010	Sofina	2,360
2,480	2,010	Solvay	2,060
2,395	1,060	Traction Elect	1,820
1,336	962	UCB	1,110
764	574	Union Miniere	584
1,198	980	Vieille Mont	1,150

DENMARK

1981 High	1981 Low	July 3	Price %
130.0	116.2	Andelsbanken	116.4
384	321.6	Baltica Skand	375
132.2	118.0	CopHandelsbank	120.4
381.6	328.6	D. Sukkerfab	351.2
127.6	115.4	Danske Bank	116.4
175.4	110.2	East Asiatic	173.6
181.4	160.6	Finansbanken	164.4
519.4	406	Forenede Brygg	518.4
292.6	240.0	Forende Dampsk	283.2
224	185	GNT Hldg	224
180.0	137.4	Nord Kabel	162.4
1,749	680.0	Novo Ind	1,431
105.0	99.2	Papirfabrikker	100
135.6	120.4	Privatbanken	125
137.0	121.4	Prov'nsbanken	123
312.0	229.2	Smidth (FL)	274.6
659.6	547.4	S. Berendsen	547.4
140.6	118	Superfos	139.4

FRANCE

1981 High	1981 Low	July 3	Price Frs.
3,925	2,241	Emprunt 4½% 1975	2,290
10,950	6,700	Emprunt 7% 1973	8,840
3 289	2,665	CNE 3%	2,885
529	340.0	Afrique Occid	452
501.0	370	Air Liquide	420
1,275	560	Aquitaine	619
125.0	86	Au Printemps	90.4
490	390.0	BIC	471
111	89.9	Banq Rothschild	91.5
839	537.0	Bouygues	639
1,233	858	BSN Gervais	946
1,898	1,515	Carrefour	1,536
484	366.0	Club Mediter	466
435	255	CGE	255
403	153	CSF (Thomson)	156.6
310	134	Cie Bancaire	134
420	256	Cie Gen Eaux	253.5
154.0	111	Cofimeg	111
214.9	120	CCF	129
93	32.8	Creusot-Loire	32.6
243.2	94.6	CFP	94.6
38.7	27.4	DNEL	35.8
990.0	760	Dumez	865
300	193	Ferodo	202
425	325.8	Gen Occidental	419.5
106.1	65	Imetal	71.5
300	246	Lafarge	273
697	590.0	L'Oreal	643
1,685	1,165	Legrand	1,259
60.5	34	Machines Bull	34
2,400	905	Matra	908
840	608	Michelin B	737
544.0	377.8	Moet-Hennessy	456
84.8	52	Moulinex	52
268	166.5	Paribas	171.5
106	62.8	Pechiney	64
311.8	238	Pernod Ricard	263
176.5	126	Perrier	134.5
178	117.0	Peugeot SA	124
206.0	131	Poclain	136
279.8	187.5	Radiotech	187.5
659	44.00	Redoute	633
95.0	45.5	Rhone-Poulenc	45.5
209.5	151.1	Roussel-Uclaf	163
143.5	102.5	St. Gobain	109.5
640.0	385	Skis Rossignol	385
392.0	239	Suez	255
1,228	880	Telemech Elect	880
250	154.5	Thomson-Brandt	160

SINGAPORE

1981 High	1981 Low	July 3	Price $
9.40	6.60	Boustead Bhd	8.86
5.40	3.42	Cold Storage	4.94
9.65	6.35	DBS	9.35
7.60	5.25	Fraser & Neave	7.20
5.55	3.75	Haw Par	4.90
4.20	3.46	Inchcape Bhd	3.68
9.90	4.65	Malay Banking	8.85
7.75	5.40	Malay Brew	7.40
16.5	11.50	OCBC	15.40
6.05	3.58	Sime Darby	4.80
15.70	12.10	Straits Trdg	12.10
7.55	4.18	UOB	7.05

Indices

NEW YORK — DOW JONES

	July 2	July 1	June 30	June 29	June 26	June 25	1981 High	1981 Low	Since Cm'pil't'n High	Since Cm'pil't'n Low
◆Industr'ls	959.19	967.66	976.88	964.59	992.87	996.77	1024.05 (27/4)	951.57 (13/2)	1051.70 (11/1/73)	41.22 (2/7/32)
H'me Bnds	59.55	60.05	60.47	60.79	60.82	61.05	65.78 (15/1)	58.57 (7/6)	—	—
Transport.	409.60	412.46	415.18	414.38	419.57	422.29	447.58 (16/4)	379.18 (20/2)	447.38 (16/4/81)	12.23 (8/7/32)
Utilities	106.74	107.49	107.36	108.65	108.76	109.58	117.81 (6/1)	103.98 (5/6)	165.32 (20/4/69)	10.5 (28/4/42)
Trading Vol 000's	45,100	45,088	41,560	37,950	39,240	43,820	—	—	—	—

◆Day's high 972.70 low 954.72

	June 26	June 19	June 12	Year ago (approx)
Ind. div. yield %	5.50	5.48	5.48	5.99

STANDARD AND POORS

	July 2	July 1	June 30	June 29	June 26	June 25	1981 High	1981 Low	Since Cmpil't'n High	Since Cmpil't'n Low
†Indust'ls	144.67	145.95	147.58	148.25	149.04	149.29	157.02 (6/1)	143.73 (2/2)	160.96 (28/11/80)	3.52 (30/6/32)
Composite	128.64	129.77	131.25	131.89	132.66	132.81	138.12 (6/1)	126.58 (20/2)	140.52 (28/11/80)	4.40 (1/6/32)

	July 1	June 24	June 17	Year ago (approx.)
Ind. div. yield %	4.86	4.74	4.73	5.07
Ind. P/E Ratio	9.27	8.98	9.51	7.23
Long Gov. Bond yield	13.27	12.92	12.48	10.13

N.Y.S.E. ALL COMMON

July 2	July 1	June 30	June 29	1981 High	1981 Low
74.73	75.57	76.15	76.58	79.14 (6/1)	72.45 (20/2)

Rises and Falls	July 2	July 1	June 30
Issues Traded	1,919	1,898	1,905
Rises	455	426	483
Falls	1,084	1,134	1,054
Unchanged	380	339	369
New Highs	9	11	20
New Lows	20	24	22

MONTREAL

	July 3	July 2	July 1	June 30	1981 High	1981 Low
Industrials	398.25	397.12	(c)	401.52	405.56 (27/5)	356.26 (20/2)
Combined	366.51	365.92	(c)	369.73	375.16 (27/5)	339.54 (20/2)
TORONTO Composite	2531.7	2535.1	(c)	2361.1	2578.8 (10/4)	2151.4 (20/2)

NEW YORK ACTIVE STOCKS

Thursday	Stocks traded	Closing price	Change on day
Conoco	1,597,500	69¾	+1¼
Sony	583,300	20⅜	−⅜
Exxon	582,700	33⅝	−⅜
Kaneb Services	553,700	22⅝	+1⅝
Fed. Nat. Mort.	517,800	9⅝	−⅛
Am. Tel. & Tel.	506,000	55	−⅛
Texasgulf	479,300	47	−⅛
Evans Products	476,300	26¼	+⅞
IBM	434,800	56⅞	—
Smithkline	413,100	73½	−2½

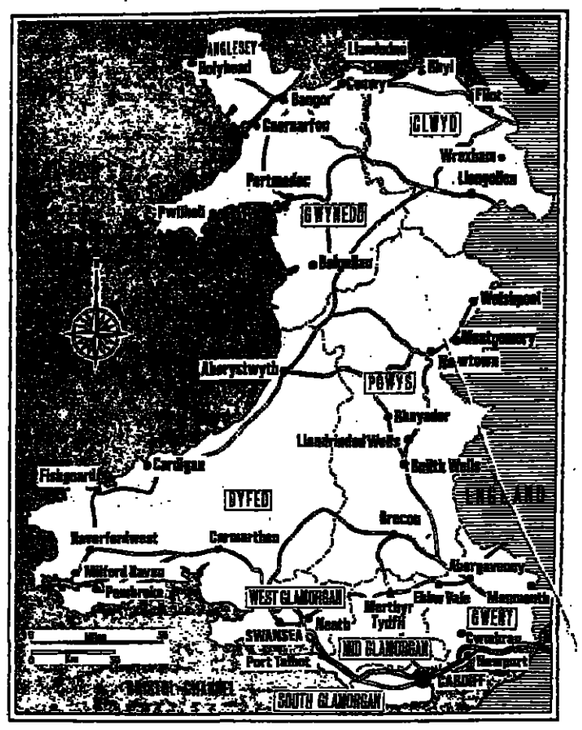
	July 3	July 2	July 1	June 30	1981 High	1981 Low
AUSTRALIA						
All Ord. (1/1/80)	701.1	701.6	699.9	699.6	737.5 (6/4)	641.1 (17/2)
Metal & Minrls. (1/1/80)	577.1	577.7	574.0	574.5	735.2 (7/1)	554.9 (5/6)
AUSTRIA						
Credit Aktien (2/1/62)	58.53	58.38	59.17	58.78	65.43 (5/1)	58.78 (30/6)
BELGIUM						
Belgian SE (31/12/63)	74.27	74.20	74.40	75.95	86.15 (17/2)	69.53 (16/6)
DENMARK						
Copenhagen SE (1/1/73)	118.21	117.42	115.27	113.77	118.21 (3/7)	95.88 (2/1)
FRANCE						
CAC General (29/12/61)	78.1	78.8	80.2	81.0	112.5 (17/3)	77.5 (15/6)
Ind Tendance (31/12/80)	81.1	81.3	82.1	82.5	105.8 (13/3)	79.2 (12/6)
GERMANY						
FAZ-Aktien (31/12/58)	243.47	241.09	242.17	240.34	243.47 (3/7)	215.88 (9/2)
Commerzbank (Dec. 1953)	749.0	742.1	746.0	739.9	749.0 (3/7)	666.4 (16/2)
HOLLAND						
ANP-CBS General (1970)	92.9	93.6	94.0	94.8	96.2 (24/6)	85.7 (2/1)
ANP-CBS Indust. (1970)	74.0	74.0	74.1	74.5	76.4 (22/6)	62.6 (2/1)
HONG KONG						
Hang Seng Bank (31/7/64)	1745.72	1727.79	(c)	1754.36	1780.55 (12/6)	1295.44 (11/3)
ITALY						
Banca Comm Ital. (1972)	220.39	225.19	229.21	230.68	292.03 (3/6)	173.36 (6/1)
JAPAN						
Dow Average (16/5/49)	7925.34	7904.56	7884.98	7897.42	7926.34 (3/7)	6956.52 (13/3)
Tokyo New SE (4/1/68)	589.43	587.67	587.07	586.15	589.45 (3/7)	495.79 (6/1)
NORWAY						
Oslo SE (1/1/72)	120.58	119.01	118.74	116.75	127.57 (4/5)	110.54 (3/6)
SINGAPORE						
Straits Times (1966)	945.62	948.75	959.65	957.60	975.26 (26/6)	659.61 (2/1)
SOUTH AFRICA						
Gold (1958)	596.8	483.1	479.9	476.7	797.6 (7/1)	475.6 (3/7)
Industrial (1958)	675.6	690.6	692.9	693.7	693.6 (1/6)	587.2 (5/2)
SPAIN						
Madrid SE (30/12/80)	133.1	132.68	134.58	136.25	141.40 (17/6)	100.48 (2/1)
SWEDEN						
Jacobson & P. (1/1/58)	588.46	591.64	581.31	578.49	591.64 (2/7)	404.17 (20/1)
SWITZERLAND						
SwissBankCpn. (31/12/58)	289.0	287.4	288.6	288.2	304.2 (24/4)	279.8 (27/5)
WORLD						
Capital Intl. (1/1/70)	15.24	—	153.2	154.6	162.6 (6/1)	149.8 (17/2)

Base values of all indices are 100 except Australia All Ordinary and Metals—500; NYSE All Common—50; Standard and Poors—10; and Toronto—1,000; the last named based on 1975. † Excluding bonds. ‡ 400 industrials. § 400 industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

FINANCIAL TIMES SURVEY
Monday July 6 1981

Wales

Unemployment has soared to almost 14 per cent while statements about Wales' economic health conflict. But a big programme of factory building and other industrial changes is being matched by a new mood and a lively demand for space, as Robin Reeves, Welsh Correspondent, reports.



Cautious hope of better times

"Notwithstanding the actions taken by Government, there exists in Wales not a jobs gap but jobs chasm into which the economic and social structures of large parts of Wales are in danger of falling."

"Considering the severity of the recession, it is remarkable how relatively well Wales has come through the storm. There must be every expectation as the economy recovers that Wales will be superbly placed to become the industrial growth centre of Britain."

THE FIRST of these diametrically-opposed statements was the conclusion of the Commons Welsh Affairs Select committee's five-month investigation into the impact of the current economic climate on the Welsh economy. The second came from Mr Nicholas Edwards, Secretary of State for Wales, in a recent address to the Welsh Conservatives' Conference.

Clearly, both cannot be right. But even allowing for exaggeration, the two assertions show starkly that these days it is possible to take both a pessimistic and an optimistic view of Wales' economic prospects.

On the minus side, unemployment has soared to levels unknown since the 1930s, now running at just over 150,000 or nearly 14 per cent. It is a cast-iron certainty that the figures will resume their upwards climb this summer and autumn. Not only is there another wave of school-leavers to take account of but also some 42,000 jobs which are surviving the recession only as a result of the Government's short-time working compensation scheme.

According to a recent estimate by the Economic Research unit at University College, Bangor, on the basis of the last Budget's forecasts, unemployment in Wales will hit the 200,000 mark, approaching 17 per cent. towards the end of next year.

A comparable forecast by the same unit some 15 months ago, suggested that the current jobless levels would not be reached in Wales until at least the end of this year. And that was because the Treasury had been forecasting some recovery in output this year.

Given the widespread scepticism about the strength of the recovery from the recession of the British economy as a whole, it is difficult to be other than pessimistic about future levels of unemployment in the principality.

On the plus side, Mr Edwards is probably right in claiming that Wales is currently experiencing the biggest ever programme of industrial infrastructure improvement and factory building. Boosted by the special funds made available to compensate for the run-down of the steel industry, the Welsh Development Agency is currently committed to spending £100m to create 3m sq ft of new factory space, or enough room for 10,000 new manufacturing jobs.

About £70m of this is due to be spent in the current financial year, and the programme is being added to all the time.

In current economic circumstances moreover, the demand is proving remarkably buoyant. Last year, the WDA allocated nearly 1m sq ft of factory space. The number let both by the agency and the Development Board for Rural Wales was 131 factories—close to the all-time record.

More encouraging still, the number of formal factory allocations in the first five months of this year is up on last year, as is the number of inquiries and the number of applications for Selective Financial Assistance.

Atmosphere

In the past year, Wales has also secured a number of important projects such as the £25m Inmos micro-chip plant, the Canadian Mitel Corporation's new £33m European manufacturing centre and the joint Corning Glass-BICC £15m project to produce optic fibre.

Thanks partly to these small rays of economic sunshine, the atmosphere of crisis which gripped Wales for much of last year seems to have partially dissipated—though perhaps only temporarily. Wales did feel very much on the sharp end of the Government's economic policies as redundancies soared, notably in the steel industry which has shed 25,000 jobs in a matter of months. Anger and frustration was widespread.

But as the flood of redundancy announcements has eased to less apocalyptic proportions, and orders in some industries have begun to pick up, a cautious hope has begun to grow rightly or wrongly, that the worst may be over. Indeed, there are companies which have emerged from the rigours of the past year with greatly increased confidence after, by any standard, a very exacting test of their general health and management expertise.

Three uniquely Welsh dimensions of last year's crisis atmosphere have also been defused by what—to put it bluntly—were Government climbdowns. One was the decision to allow the British Steel Corporation to maintain both its major Welsh strip steel plants, Port Talbot and Llanwern, as part of the new chairman, Mr Ian MacGregor's survival plan.

The extent to which the Government was influenced by the threat of a civil disobedience campaign, being called for by the Wales TUC given an attempt to close either plant, may not become clear until the relevant Cabinet papers become available in 30 years' time.

With both plants slimmed down, through the shedding of 11,000 workers, to international productivity standards, there was in any case a strong economic argument for keeping both in play. Nevertheless, the Government's willingness to extend its massive funding of BSC's losses has kept two important lynchpins of the economy of South Wales in being—though until the steel industry returns to profitability the future will remain insecure.

The trade union civil disobedience threat in turn drew its inspiration from the early autumn success of the campaign of the Welsh Nationalist party, Plaid Cymru, in forcing the Government into a U-turn over its Welsh language television proposals. This confrontation arose because, four months after assuming office, the Government abandoned its manifesto pledge to establish a long-promised Welsh Language Service on the new Fourth channel.

Hunger strike

By September last year, however, it was facing an impending hunger strike by veteran Plaid president, Mr Gwynfor Evans—an unprecedented act in Welsh political history—the refusal of over 2,000 nationalists to pay their television licences (some of them were already serving prison sentences) and a mounting crescendo of other forms of direct action.

Combined with the anger over the jobs, all this threatened to create the "serious social disorder" of which the Welsh Affairs Select Committee had also warned in its report unless the Government acted more vigorously. The Government beat the retreat and reverted to its original TV pledge.

Last but not least was the Government's surrender to the miners earlier this year. The threat of pit closures and redundancies among miners in the South Wales coalfield loomed large from the moment the axe descended on the Welsh steel industry late in 1979.

It was not until February this year that the long-threatened confrontation took place, and it lasted less than a week. As the immediate all-out strike by 26,000 Welsh miners spread rapidly to other parts of the British coalfield, the Government again quickly retreated by promising more cash aid for the industry.

Since then, one of the five pits on the Welsh closure list has shut down because of impossible working conditions, and others may follow. But equally, the finance has been made available to allow Welsh coking coal to be priced competitively against imported supplies and resume meeting half the needs of Port Talbot. This was after 12 months during which the steelworks had gone over entirely to imports.

Yet while Wales has clearly benefited from modifications in the original thrust of the Government's policy, Mrs Thatcher's brand of Conservatism is succeeding to the extent that more thought and effort than ever before is being devoted to encouraging the creation of new enterprises.

The Wales TUC, with the aid of Welsh Office and WDA funding, has instituted a study into the feasibility of establishing a Mondragon-style workers co-operative movement (based on the famous cooperative in northern Spain) backed by a Resource Centre and Investment Fund to provide new job opportunities. This is a very novel departure for the trade union movement, but only one example of a number of co-operative institutes springing up al over Wales and particularly in rural areas.

BSC (Industry), the steel corporation's industrial diversification arm, is establishing a series of workshop premises for fledgling businesses run by experienced managers who can advise on day-to-day problems. The first one, at Brynmawr, near Ebbw Vale, is already producing very encouraging results.

Advise

Swansea City Council has introduced its own new enterprise grants scheme to help new businesses, and also enthusiastically embraced the Government's designation of the Lower Swansea Valley as an "Enterprise Zone," offering businesses a ten-year rate-free period and other benefits.

The Development Board for Rural Wales, among its many other activities, has been holding very successful public meetings—in both English and Welsh—for people interested in starting their own business. It has already established a course, in conjunction with Manchester Business School, for helping budding entrepreneurs to acquire the necessary business skills.

Politically, the economic situation has also encouraged the Welsh county and district authorities to put their heads together in two conferences over the past year. So far, this has resulted mainly in unanimous calls for the Government to do more, but plans are also afoot to establish a standing committee on unemployment, which, its proponents believe, could provide an important new Welsh institutional focus on Wales's economic problems.

Indeed, with unemployment destined to remain the number one item on the Welsh political agenda for the foreseeable future, Wales will be looking for the party which offers the most realistic programme for tackling the problem. That said, with significant sections of Welsh industry now very much geared up to serving a European market, it is conceivable that Labour's commitment to pull out of the EEC, not to mention the work of the parliamentary boundaries Commission, could still alter Wales's political complexion significantly when the next election test comes.

Making a hard sell abroad

MR NICHOLAS EDWARDS, Secretary of State for Wales, was in Japan earlier this year, leading a Development Corporation for Wales mission to win investment. Six months earlier, he led a similar mission to the U.S. Both visits are a recognition of the fact that these days Wales is looking increasingly to overseas investment to modernise its industrial base and provide an increasing proportion of its new jobs in the 1980s.

It so happens that while in Japan, Mr Edwards was forced to stress that he was a British Minister anxious to see Japanese investment in all parts of the UK. This was because, some three weeks earlier Nissan had revealed it was examining the UK as the site for its proposed major new European car assembly plant.

Although the visit had been arranged many months previously, the North East of England was up in arms at the thought that Wales was trying to steal a march over its claims for this coveted investment project promising some 5,000 new jobs by 1986. Since then, even the West Midlands has been voicing concern at the possibility that the project may come to Wales—a compliment indeed to the region's investment-pulling power.

Competition

Ever since Ford plumped for Bridgend, South Wales, as the site for its £230m new European engine plant in 1977, Wales has been recognised as a first division competitor for internationally mobile investment. Not that overseas investment is a new phenomenon. Monsanto established the first foreign-owned subsidiary, at Ruabon, North Wales, as early as 1921. But it is a trend that has gathered pace since the Second World War.

The Ford project made headlines because, from the moment it was announced it was described as the "investment project of the decade." Its capture demonstrated that Wales has the sites, the infrastructure, and track record (Ford also had the operating experience of plants at Swansea and Treforest to go on) to beat off the competing claims of many other parts of Europe.

Today, Wales has approaching 200 manufacturing enterprises which have overseas parent companies. Between them, they employ 16 per cent of the total labour force. Over 100 are subsidiaries of U.S.-owned companies, and at least a further

TOP EMPLOYERS IN THE REGION

Company	Employees	Date of arrival	Main product
NCB	31,000		Coal
BSC	25,000		Steel
Girling	*5,200*	*1946*	*Motor parts*
Ford	4,400	1965	Engines and parts
British Aerospace	4,300	—	Aircraft
BL	4,158	1968	Motor components
Hoover	3,750	1948	Washing machines
GKN	3,000	1902	Steel products
ITT	3,500	1945	Electronics
BP Chemicals	3,000	1948	Petrochemicals
Courtaulds	3,000	1917	Man-made fibres and garments
British Transport Docks Board	2,900	1963	Ports
Christie Tyler	2,170	1946	Furniture
GEC-Hitachi	2,000	1945	Television sets
Thyssen	2,000	1954	Civil engineering

WINNING INVESTMENT

50 have Continental parent companies of which half are West German-owned. On top of these, there are seven Japanese-owned subsidiaries, giving Wales the biggest concentration of Japanese manufacturing investment in the UK.

The strong Japanese presence is no accident but the outcome of persistent wooing since the early 1970s by the executives of the Wales Development Corporation, which has prime responsibility for handling foreign inward investment.

Over the past year, the recession has meant a distinct dip in the number of new arrivals, of course. Even so, there have been a number of notable additions to the list. They include the Anglo-American Inmos Corporation which decided last October to build its first £25m UK production facility at Newport, Gwent; the Canadian Mitel Corporation announced the construction of the £32m European production centre at Caldicot, Gwent; Yuasa, the Japanese battery manufacturer, is close to signing an agreement to establish manufacturing plant at Ebbw Vale; and in North Wales, the U.S.-owned Corning Glass and BICC have just announced a £15m joint project to manufacture optic fibres for the communications industry at Shotton, Clwyd.

The Nissan car project is still in the air but by all accounts Wales has three of the eight possible UK sites for the plant, and is generally considered the front runner, not least because of its track record in attracting Japanese companies.

One site is the British Steel Corporation's Llanwern steelworks whose strip steel is highly thought of by the motor industry. Another is at Wentloog, between Cardiff and Newport, and the third, the Deeside Industrial Park at Shotton.

The Nissan project would be exceptionally welcome, of course, given the sharp erosion in traditional employment opportunities over the past 18 months. But the Development Corporation is continuing to plug away at Japanese business generally and is optimistic that in the medium term, that is two to three years, as many as 30 Japanese companies may be persuaded to establish European subsidiaries in Wales.

Indeed, plans are afoot to give a small but significant additional in the range of incentives. This is the setting up of a Japanese school in Cardiff to provide a part-time Japanese education for the children of Japanese executives based in Wales.

The development corporation is also experiencing a revival of interest from the U.S., after an exceptionally slack period last year due to the recession. The recovery in the dollar and the election of a President regarded as more sympathetic to business has resulted in a significant number of U.S. companies being persuaded to look again at their plans for investing in Europe.

Boosted export sales compensate for weak home demand

AMONG WALES'S selling points in its bid to attract the Japanese Nissan car plant is the fact that it already has a surprisingly large motor components sector. It has tended to be overshadowed by the coal and steel image, though much of it developed in the 1950s and 1960s—before the current recession and the specific difficulties of the British motor manufacturers, the sector was estimated to be employing at least 30,000 people—a larger number than the South Wales coalmining industry.

Over the past 18 months, there have, of course, been casualties. Firestone's tyre plant at Wrexham has closed. Part of BL's Rover operation at Cardiff is being run down. The recent shutdown of Duport's Llanelli engineering steels plant was caused above all, by the domestic motor industry's problems. There has also been a wave of closures and redundancies among many smaller Welsh motor component suppliers.

But the signs are that the sector may be emerging from the worst of the recession. Full-time working has been restored in a number of instances; investment is taking place to improve competitiveness; and there are even some examples of companies resuming limited recruitment in areas of their operations.

Success

Cam Gears at Resolven, West Glamorgan, for example, has been taking on more workers in its direct production areas, thanks to its success in increasing exports to compensate for weak home demand.

A subsidiary of the Cleveland, Ohio-based TRW group, Cam Gears is the largest independent manufacturer of manual steering systems in Europe. It has managed to push up its overseas sales from £7.7m to £12.2m over the past three years, mainly to North America, Sweden and Germany. Exports now account for nearly 50 per cent of the plant's output and, this year, have earned the company the Queen's Award for Export Achievement.

MOTOR COMPONENTS

Cam Gears is distinctly optimistic about future prospects and planning for growth over the next five years, mainly in export markets. But it recognises that this will involve investment of several millions in order to bring its manufacturing efficiency up to the best Japanese standards.

Matching Japanese practice is also very much a growing preoccupation at Ford's Welsh plants. Besides its new £230m European engine plant at Bridgend, the company also manufactures axles, gearboxes and other components at Swansea, and ceramic insulators and sparking plug electrodes at Treforest. The Japanese challenge has led the workforce at Bridgend to being limited to 1,800 rather than the 2,500 originally planned, and to the introduction of specific Japanese practices such as quality circles.

The massive £230m plant, which came into production last year less than three years after it was first announced, is now very much in business, producing 1,800 engines a day for delivery to Ford's assembly plants at Halewood and in West Germany. An increase to full capacity working is only waiting on a recovery in the market.

BL's pressings plant at Llanelli is already enjoying a buoyant market, thanks to the success of the company's Mini Metro model. About £8m was invested in new manufacturing equipment at the plant, which produces the Metro chassis and other basic components.

U.S.-owned Borg-Warner, which has consolidated its UK operations in South Wales over the past 18 months, is also enjoying a much fuller order book than it originally forecast. Major customers for the company's automatic transmissions include BL, Saab and Volvo.

The company has just announced that it will be spending £3.5m over the next year or so, putting its new continuously-variable transmission, developed in collaboration with Van Doorne of Holland and Fiat of Italy, into low volume production. Investment of more than £30m is promised at the plant, provided productivity among the 1,300 workforce, now back on a seven-day shift week, can be raised by more flexible working practices and reductions in overtime.

Bramber Engineering, which has three factories in the Rhonda Valley manufacturing vehicle springs, has invested £3m and is in the process of spending a further £1.25m to improve its manufacturing competitiveness and expand production of its new taper leaf spring.

The new spring offers a 40 per cent weight reduction, improved durability and a better ride over the conventional multi-leaf spring. Bramber Engineering says. Although the state of the company's order book is far from ideal, Bramber is optimistic that its business will pick up.

Useful share of a growing industry

ELECTRONICS

EFFORTS BY WALES to secure a stake in the fast-growing micro-electronics supply industry have received a heartening boost over the past year. First came the decision of Inmos to establish its first UK manufacturing plant at Newport, Gwent. This was followed a few months later by the fast-growing Canadian Mitel corporations equipment and advanced microcircuits at Caldicot, between Chepstow and Newport.

In addition, Siliconix at Swansea, the European subsidiary of a Santa Clara-based semi-conductor manufacturer, has announced plans to expand into silicon wafer production. And there are reports that another U.S. manufacturer, Emm Sesco, also is at the point of establishing a European manufacturing base in South East Wales.

Work has already started to build Inmos's £25m plant at Newport, which is forecast to provide about 2,000 new jobs over the next two to three years. The site initially will produce a 16K static RAM and a 64K dynamic RAM, the first two products with which the Anglo-American company hopes to carve out a significant share of the world microchip market.

It is no secret that Inmos initially would have preferred to have sited its first production unit alongside its Bristol research headquarters. A site within a development area was the price Inmos was required to pay for securing a further £25m instalment from the National Enterprise Board.

But, according to Dr Dick Petritz, Inmos chairman, the team they are recruiting in South Wales compares with the very best they have got at Colorado Springs, California, the site of the first Inmos plant.

Mitel is building its plant, which will serve as the company's European headquarters, on an 18-acre site at Caldicot purchased from the Welsh Development Agency. It hopes that the first phase, a 165,000 sq ft unit, will be in production by the end of the year. A second of 100,000 sq ft is due for completion by the end of 1973.

Mitel will be manufacturing electronic switchboards, integrated circuits and thick film hybrid circuits. About two-thirds of the plant's output is due to be exported to the rest of Europe, Africa and the Middle East. Initially, the £32.5m project will employ about 1,700 workers, but the company says the number eventually could reach 3,000.

The third heartening development is the plan by Siliconix to extend into silicon wafer production in Wales. The company first established a presence at Swansea 11 years ago, since when it has steadily expanded its Welsh operations to the point where they now account for 42 per cent of the group's overseas sales. Swansea also contributes a significant part of the research effort.

Different site

Recently, the company more than doubled the size of its premises from 17,000 sq ft to 40,000 sq ft. The new wafer fabrication project, which is expected to cost about £12m, will be built on a different site to take advantage of the 22 per cent regional development grants available in selected areas. The company is also negotiating for a grant under the Government's microprocessor industry support programme.

The investment traffic is not all one way. Electrotech, a group launched in Wales a decade ago, has grown into a recognised world leader in the technology of plasma etching, opening its own subsidiary in California's Silicon Valley. It produces vacuum deposition equipment, on to pure silicon—an essential step in the creation of the microchip. It uses a technique based on energising gases in a vaccuum chamber with a high-frequency field.

In St Asaph, North Wales, Pilkington PE has been producing specialist electro-optical system for use by the United States Air Force, as well as the British military forces, for a number of years. The company also designs and builds general-purpose electro-optical products and test equipment for the industrial market and has developed a unique coverslide material to protect satellite solar cells, which has been selected for major communications and research satellites.

Of course, Wales still has some way to go before it becomes an automatic choice for expansion projects in the world's burgeoning microelectronics supply industry. But success with these, and earlier projects, such as Ferranti's £15m microprocessor design, research and development project at Cwmbran, will boost considerably Wales' bid to develop its own technological base. The nucleus has been established. It now needs to grow.

Oil refinery projects nearing completion

TWO MAJOR oil refinery projects costing the best part of £400m. are now nearing completion at Milford Haven, investments which will further strengthen the Haven's place as one of Britain's major oil terminals. Both have involved the installation of catalytic crackers to increase the yield of petrol and other light derivatives of crude oil.

On one side of the water, a £90m catalytic oil cracker is already at the commissioning stage at Amoco's oil refinery. This is a joint project in which Murco oil has a 30 per cent stake.

On the other side, Gulf-Texaco's far larger cracker is within a year of completion at a cost which is expected to work out at over £300m.

Between them, they have employed about 6,500 workers during the construction phase though in a clear illustration of the capital-intensive character of today's oil refining industry, the Amoco-Murco project will provide only an extra 100 permanent jobs and Texaco-Gulf only a further 300.

The investments were triggered by the dramatic change in the nature of the international oil market after the 1973 energy crisis. This led to a sharp—and permanent—drop in demand for heavy fuel oil.

The catalytic crackers will enable both refineries to more than double yields of petrol and other light derivatives from a given quantity of crude oil; thereby reducing the yield of fuel oil which, except in specialist uses such as shipping, is no longer really competitive against coal and gas.

It is more than 20 years since Esso first recognised the value of Milford Haven as one of the best deep water anchorages in Western Europe and built the first—and with a 15m tonnes capacity, still the biggest—oil refinery on its shores. This was followed by Texaco's 9m tonne refinery in 1964, Gulf's 5m tonne unit in 1968 and Amoco's 4m tonne refinery which came on stream in 1973.

BP also has an offloading facility in the haven for piping crude to its long-established refinery at Llandarcy, near Swansea. The net result is that the haven now accounts for about one third of Britain's oil refining capacity.

In the present economic climate and with over-capacity in the European refinery industry, Milford recognises that the period of major investment by the industry is probably over for the time being. Nevertheless, there are hints from time to time of further projects to come.

A senior Esso executive said last year that most companies had investment schemes under consideration for implementation sometime in the next ten years. It was a question of deciding what sort of projects they should be and, crucially, their timing.

Dinorwic scheme will back up national grid

ELECTRICITY

ONE OF THE most challenging engineering projects in the world is now nearing the commissioning stage in Gwynedd, North Wales—the Central Electricity Generating Board's Dinorwick hydro - electric pumped storage scheme.

This £460m project, which has involved the excavation of huge caverns deep inside Elidir Fawr mountain, in Snowdonia National Park, will enable the board to generate extra electricity in periods of peak demand and so keep steady the national grid's output.

Begun in 1974, Dinorwic is the biggest pumped storage power station in Europe. It has involved the excavation of 3m tonnes of slate rock to create the station's network of tunnels carrying the water between the two lakes which form its upper and lower reservoirs.

The chamber housing the station's main plant is one of the largest manmade caverns ever created, twice as long and half as wide as a football pitch and higher than a 16-storey building.

Dinorwic will have six turbine generators, each with a capacity of 313 mw, which are also designed to work in reverse as motor pumps to return the water to the upper reservoir in off-peak periods. The first is due to be commissioned this October and the entire project will be operating fully in 1982-83.

Dinorwic's great value, on a day-to-day basis, will be to help iron out the sharp troughs and peaks in electricity demand and to maintain the frequency of the national grid. During periods of peak demand it will act as a conventional hydro-electric unit feeding power into the grid. In periods of low demand, notably at night, surplus electricity will be used to pump back the same water from the lower lake, Llyn Padarn, to the upper one, Marchlyn Mawr.

When acting as a hydro-electric station, it will have the capacity to reach an output of 1,320 mw in 10 seconds and sustain a constant output of 1,680 mw into the national grid for five hours.

Automatic

That is more than enough electricity to cover two of the CEGB's largest, modern power stations and Dinorwic will trip in automatically should there be a breakdown in one of the base load stations feeding the grid.

Although in a full cycle Dinorwic will consume more power than it produces, the board says it will be a real money spinner, saving £1m a week in the national grid's base load costs. The station's speedy response—faster than any pumped storage unit built so far—will facilitate the careful control of electricity supply necessary to achieve this.

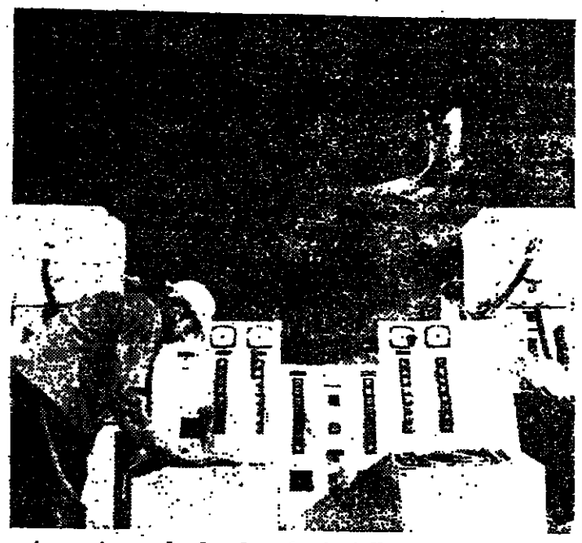
For the record, Dinorwic will use more than 1,400m gallons of water in a full cycle. The inlet tunnels are more than half a mile long and include a vertical shaft 440 metres deep and 10 metres in diameter. They will carry the water at the rate of 85,000 gallons per second to the turbines.

Interestingly, the scheme has been built largely by locally-recruited labour. At the outset the board agreed to help ease Gwynedd's unemployment by recruiting at least 70 per cent of the 2,000 labour force needed for construction in the surrounding district, and give them the necessary training, rather than from the usual camp followers of large civil engineering projects.

In the event this approach proved so successful that well over 80 per cent of the workforce was recruited locally, a significant number of them ex-slate quarrymen who had worked in the now-disused Dinorwic slate quarry which is an integral part of the site. Not only have they proved adept at embracing the skills required for the project but, the CEGB stresses, industrial relations have been excellent.

Although the scheme is two years behind the original schedule, this has been due to unforeseen engineering difficulties, not labour problems. It is still nearer to programme than any other recent major UK construction project, the board says.

Even so, the signs are that the majority of the workforce will soon be joining Gwynedd's already long dole queue. In spite of local pressure on the board to look at other sites within Snowdonia to which the Dinorwic workforce could be transferred intact, its next pumped storage project, if approved, is likely to be in Glossop, Derbyshire.



An engineer checks plans for installing winding gear for the main shaft excavation inside the mountain

Fighting hard to meet the 1980s

TOURISM

TOURISM IS Wales' biggest single industry after manufacturing — a £450m business employing nearly 200,000 people. Moreover, like other sectors of the Welsh economy, it is having to fight hard to adjust itself to the demands of the 1980s.

The industry was built on the traditional tidal wave of holidaymakers from the English connurbations which peaked each year in July and August. They booked eight months in advance and came by train to spend a fortnight in a Welsh seaside resort.

Today, Welsh tourism faces not only acute competition from places as far afield as the Mediterranean and Florida for what was once its bread and butter business, but also radical changes in what most tourists have come to expect of a holiday. It adds up to a formidable challenge, but one to which the industry, with the help of the Wales Tourist Board, is aiming to respond.

Spending

In spite of the gloomy economic climate of recent years, holiday spending continues to mount, and is now approaching the same level as food expenditure. Last year, British spending on trips away from home totalled £7,684m, of which £4,546m was spent within Britain. With earnings of £450m, the Welsh tourist industry thus attracted some 10 per cent of the UK total, which was 28 per cent up in money and 10 per cent in real terms on 1978 expenditure.

The actual number of visits to Wales increased last year by 13 per cent to 12.5m, of which 8.8m were holiday trips and the remainder were conferences, business visits and so on. Of the holiday visits some 4.5m or roughly half were for four nights or longer, and most of them were for seven to 14 days.

Despite the big increase in the number of foreign tourists coming to Britain in recent years, the overwhelming majority of visitors to Wales are still from within Britain. About 30 per cent are drawn from the Midlands and North West, a further 25 per cent come from South East England, and another 15 per cent from within Wales itself. Over 80 per cent of all holiday visitors stay on the Welsh coast and 84 per cent of them travel by car.

Even so, the pattern of visits is very different from only a few years ago. The acute competition from overseas destinations with guaranteed sunshine at very favourable prices, is now making the traditional holiday fortnight very much a declining share of the total.

Wales has been able to hold its own only by making a very strong pitch as the destination for a short or additional—and usually off-peak—holiday. It is very much a growth sector of the tourist market and Wales has done well. The Wales Tourist Board calculates that Welsh destinations currently account for about 11 per cent of the total, putting Wales on a par with South East England as the most popular area for the "short break."

This trend, and the strong competition from foreign tour operators, has also undermined traditional booking patterns. Today's holiday-maker is no longer prepared to book six to eight months in advance and put down a 25 per cent deposit. These days six to eight weeks in advance and a much smaller deposit is becoming the rule.

The Welsh tourist industry also increasingly accepts that it must provide a higher standard of food and accommodation, whether it is in hotels, self-catering facilities or caravans. To this end some 6,000 new bedrooms with private bathrooms have been added to the hotel accommodation over the past 10 years through the tourism grant scheme.

Attractions

Another very significant trend is that the traditional Welsh seaside resorts are no longer so much destinations in their own right, as bases for either touring attractions in the surrounding area or for more active leisure pursuits, such as walking, pony-trecking, sea fishing or golf.

Wales's abundance of ancient castles and the narrow-gauge "Great Little Trains of Wales" have long been important features. But recognition of the greater mobility now enjoyed by most tourists had led to some very successful new attractions, such as the slate caverns at Blaenau Ffestiniog in North Wales which last year were visited by nearly a quarter of a million people.

Indeed, such is the growing interest in industrial archaeology that plans are well advanced to re-open a coalmine in South Wales—Big Pit, at Blaenavon in Gwent—as a tourist attraction. It will form the centrepiece of a long-term policy by the Wales Tourist Board to bring the South Wales industrial valleys, with their unique character, into Welsh tourism.

But while there is clearly ample scope for further growth, it is not going to come easily. The Board is a statutory body charged with the task of developing the industry. For this purpose it currently has an annual grant of some £4m, of which half is available for advertising and promotion and half for the grant aiding of accommodation improvement schemes and specific tourism projects.

Even so, the Board is certain that its own resources are far from adequate to meet the high-powered competition which Wales is now up against and it is urging the tourist trade itself to devote at least 3 to 5 per cent of it turnover towards marketing and promotion. At the same time, it has had some harsh words to say to some local authorities for failing to devote sufficient resources to what for many of them is a vital source of local employment.

Arguably, the Welsh tourist industry could also do better if the tourist board was free to market Wales' attractions overseas. Together with the short, additional holiday, this is clearly where a great deal of growth potential exists. But overseas promotion is presently the preserve of the British Tourist Authority and it would probably require legislation to change the position.

However, discussions are currently under way to establish a Welsh Tourist Board shop window in London which, it is hoped, will go some way towards diverting an increased proportion of the thousands of tourists who pour into Heathrow and Gatwick each week, away from the London, Stratford, Edinburgh milk run, and towards Wales' unique attractions.

Cardiff's new centre takes shape

REDEVELOPMENT

THE CAPITAL city of Cardiff is in the throes of its biggest face-lift since before the first world war. After two decades of discussion, argument, public inquiries, delays and financial crises, the comprehensive redevelopment of the city centre is now finally taking shape.

Such have been the delays that the citizens of Cardiff began to believe that it might never happen. Yet, arguably, the postponements have been a blessing in disguise, enabling Cardiff to avoid many of the mistakes perpetrated elsewhere in the widespread city centre redevelopment boom of the 1960s and early 1970s.

Cardiff City Council was not concerned to move quickly to *start with, insisting on in-depth* studies and a wide measure of public consultation before drawing up its development plans. It then ran into a major public inquiry with many objectors.

By the time the compulsory planning orders and planning approvals eventually emerged from the Welsh Office, the 1973 upsurge in energy prices and inflation had arrived. They made nonsense of the basic economic arithmetic for the city's comprehensive and very much interlocking development scheme drawn up jointly between the council and Ravenseft Properties.

The upshot after reflection was that the two partners agreed to break their agreement, with Ravenseft paying some £3m to the council in respect of the inconvenience caused.

Cardiff's planners were then left with the job of trying to pick up the pieces. Clearly it had to be a more modest scheme but at the same time they were determined to work within the existing statutory approvals to avoid yet more public inquiries.

The new approach was to break down the redevelopment areas into separate parcels and identify those which appeared to be the most commercially attractive. The council's contribution to each project was to be the land; otherwise, financial responsibility was to rest entirely with the developer.

At the heart of the whole redevelopment plan was an area immediately south of Queen Street earmarked as a major shopping area, and in 1975 submissions were invited from prospective developers. A consortium headed by Heron Corporation was judged by the council to have put in the best scheme and building work finally began in 1979, on what is now the centrepiece of the whole redevelopment, the St David's Shopping Centre and National Concert Hall.

Commercially, it provides 500,000 sq ft of new shopping *space, including a 100,000 sq ft* Debenhams department store, major extensions to Boots, Marks and Spencer, and Woolworth stores. In addition there are two medium-sized stores, 66 new shops, six kiosks and a restaurant, all attached to the concert hall but with a separate access.

Arcades

It is generally agreed that this amount of additional shopping space was required to enable Cardiff to regain its preeminence as a regional shopping centre. But it might have been done very differently. The development has been built on lines which respect Cardiff's well-established arcade tradition, linking up with the city's existing network of fine 19th-century arcades. The smaller shops are all ranged around an arcade system and serviced from an upper level service deck, as are the larger stores.

The standard of finish of the development—the cladding is in stone and Welsh slate—is also high and in keeping with the best of Cardiff's 19th-century architecture.

An adjacent second phase has also been partly completed. It includes a large new Tesco store, developed in this instance by Capital and Counties, which has more of the look, externally, of a quality department store than is normal for Tesco, and multi-storey car-parks.

The concert hall, which will be finished next year, has been designed by the J. Seymour Harris partnership and is being built by John Laing Construction. The cost, more than £6.6m, is being met from the compensation (plus interest) paid by Ravenseft, a Welsh Office grant of £1m in recognition of its planned role as Wales's national concert hall, and capital receipts on the sale of land and property owned by the city council.

The aim is to provide a broad-based programme of entertainment, not only classical music but also pop concerts, jazz festivals, indoor sport, film and fashion shows, and lectures.

The hall's auditorium will have seating for up to 2,000 people, accommodation for 120 musicians and more than 100 singers.

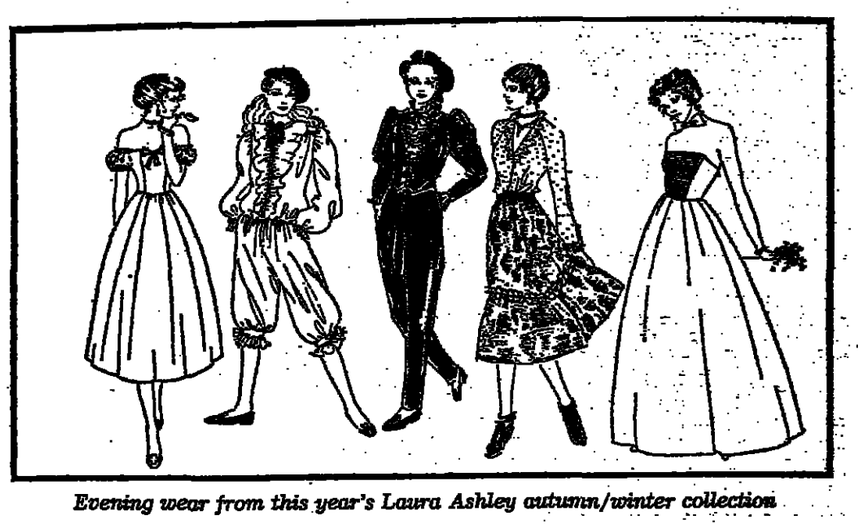
The hall has also been designed very much as an international conference centre with extensive audio-visual services, including simultaneous translation facilities, closed-circuit television and permanent installations for the media, plus five rooms for meetings of between 14 and 32 people and facilities for conference organisers and VIPs.

Among the next key redevelopment schemes in the pipeline are a leisure centre, for which the council is currently seeking a developer, and a new four-star hotel. In its leisure centre specification, the council says it would like to include an ice rink and other basic facilities, but it is prepared to consider the inclusion of commercial space in the overall scheme.

So far as the hotel goes, Holiday Inns have been in discussion with the council for some time. Assuming an agreement is finally reached, construction work is expected to begin next year, giving the city centre a welcome addition to its range of accommodation.

With the potential tourist in mind, the principle has been accepted of establishing a flea market and craft workshops linked to a saleroom in the redeveloped centre.

The gateways to Cardiff are also getting a long overdue face-lift. What was an exceptionally drab main bus station is in the process of being radically refurbished, and British Rail has decided to spend £¾m on rebuilding Cardiff Central railway station. Between them these two developments should make a far better first impression on future visitors to the Welsh capital.



Evening wear from this year's Laura Ashley autumn/winter collection

Cashing in on rural life

THE SMALL VILLAGE of Carno, in Powys, is an unlikely location for the headquarters of a worldwide fashion design business. But Bernard and Laura Ashley have vividly demonstrated over the past 20 years that, given flair and imagination, the heart of mid-Wales is as good a place as anywhere to succeed.

In 1961 the couple decided to move their business to Wales. Bernard Ashley began printing textiles in a small workshop in Pimlico, London, in 1953. He designed the furnishing prints himself, while Laura designed the smaller items, such as table mats and linen napkins. A six-year sojourn in Brasted, Kent, followed. It was during this period that the Laura Ashley label was first used — on linen tea towels with Victorian playbill and poster designs.

They were initially regarded as only a sideline to the main business, but demand in the U.S. proved insatiable and within a year the company had gone over entirely to the printing of tea towels.

From these developed matching items, such as aprons, oven gloves and napkins, and gradually the prints began to assume the distinctive Laura Ashley look.

Even so, Bernard Ashley says it was on returning to Wales — Laura is originally from Dowlais, Merthyr Tydfil, and he regards himself as an adopted Welshman — that the business really got off the ground. Their first building was a converted dancehall where, with four employees, they went over almost entirely to tough cotton drill garments. These were designed or cooking or gardening, but proved generally popular.

Two years later, in 1963, the Ashleys bought Carno's defunct railway station, complete with a large granite shunting shed, waiting rooms, ticket office, and three acres of land. A 5,000 sq ft extension was added to the shunting shed, enabling the company for the first time to carry out its own scouring, bleaching and better finishing processes on the premises.

This was an important stage in Laura Ashley's development as a vertically integrated company. Grey cloth could be bought in and prepared, printed and made up into finished garments, all under the same roof.

Throughout the 1960s, manufacturing space and the range of products were steadily expanded into shirts, shirt-dresses, and long dresses in finer cottons. In 1968, impatient with *the performance of wholesalers* who were returning a significant percentage for seemingly trifling reasons — the company decided to open its own shop in Pelham Street, Kensington.

Sparse decor

Such was the crush that customers had to be let in a few at a time. A year later the shop had to be moved to premises in Fulham. The decor was distinctly sparse. Funds were insufficient for the usual lavish shop interior of the time. But again it proved an instant success, initiating a simple shop decor policy which is now part of the Laura Ashley image in well over 60 directly operated shops and many in-store outlets in department stores around the world.

The company's foreign expansion began in 1971 with licensing operations in Australia and Canada, and then Japan. The following year the first Continental shops were opened in Geneva and Amsterdam. Paris with some trepidation in 1974, but was a sell-out on the first day.

With turnover doubling every year, the company plunged directly into the U.S. market in 1977, opening a five-storey shop on Madison Avenue, New York, and followed this success with openings in Boston and Westport.

The move from garments back to home furnishings began in 1978. It sprang from the realisation that the company was basically in the business of designs, which could be applied to many other materials.

It has grown rapidly. The 1981 collection includes 154 furnishing cotton designs and colourways, 119 wallpapers, chintzes, upholstery cottons, ceramic tiles, bed linen, paints, table linen, and a variety of soft furnishings.

The new range has been well received and is helping to restore buoyancy to sales after a difficult 12 months during which Laura Ashley, like so many other international businesses, suffered from squeezed margins and currency losses.

Sales have been boosted by a decision to resume supplying on contract through traditional trade channels. So much so that the company has recently been recruiting additional staff. Of the 2,000 now employed by the company worldwide, more than 800 are in Wales. While Bernard Ashley stresses that as an international business the company does not overplay the Welsh connection, he says it has been an important driving spirit in the Laura Ashley success story.

The company's design philosophy has never varied. It is based on the premise that a majority of people prefer country life to urban life—or at least the idea of it—and will therefore buy products reminiscent of an idyllic rural existence.

But this philosophy also extends in a highly practical way to the company's manufacturing operations. There is nothing token about its presence in mid-Wales. Laura Ashley's main textile and graphic design studios are at Carno, as is the company's financial control department. All its outlying factories, seven more in Wales, three in England, one near Dublin, one near Eindhoven in the Netherlands, and the latest in Kentucky, U.S.—are situated in rural communities, making a significant contribution to the local economy.

The company is rewarded, in turn, by an exceptionally loyal staff. Labour turnover was less than 4 per cent, even before the recession.

Mr Ashley ses no reason why so many international businesses should feel tied to traditional centres. "All you need is a good telephone and telex service," he says.

That said, he would also like a local airstrip with immigration facilities.

PROFILE: DEBENHAMS

Formula changed to raise profits

NO BUSINESS has a greater stake in the future success of Cardiff city centre's redevelopment than Debenhams, the department store group. Not only has it invested £14m in the new St David's Centre which includes its own 100,000 sq ft department store, but it has also seized the opportunity to launch an entirely new formula in British department store retailing.

The new concept stems from a close study of the American experience. In contrast to Britain, U.S. department stores remain among the most successful sections of the retail trade. To find out why, Debenhams looked in particular at Bloomingdales, the New York store, which enjoys one of the best returns and capital profit ratios among American retailers, and then invited the American company's Hollywood designers, Chaix and Johnson, to help design the new store.

Debenhams has invested £14m in Cardiff's St David's Centre, home of its new 100,000 sq ft store

At first sight, the only obvious difference, at least to the non-expert eye, is the absence of departmental description and direction signs. The different departments of the store are indicated instead by changes in colouring, decor and lighting.

The menswear department, for example, is done out in brown and oak beams, the books department has solid oak fixtures to give it a library appearance, while the cosmetics department, which traditionally has had a very rich decor, is designed in the American clinical style—this gives cosmetics the appearance of being a necessity rather than a luxury.

Even more crucial, though less obvious to a layman, only 50 per cent of the normal amount of goods is on show. There are no large counters, big cabinets, and long racks and stands.

The aim is to ensure that the full range of merchandise is on show but in minimum quantities at a time, so that it can be far more attractively displayed. This policy also allows a reduction in the amount of floor space between display units.

The different display is combined in turn with a very different staffing policy. In contrast to the conventional store where most of the staff are permanent employees. 70 per cent at Debenham's Cardiff are part-timers. They work for only four hours a day with no lunch or tea break (and do not require an employers national insurance stamp).

The majority of the selling staff work either from 10 am until 2 pm or noon to 4 pm. Not only do the short hours result in a much higher level of sales productivity—it has been calculated getting on for double—but the sales service is at a maximum when it is most needed, during the lunch hour.

"We have put the service back into the department store," says Mr Peter Davies, the young and very enthusiastic director of the Cardiff store. Moreover, he stresses it is being done in what is an aggressive low margin, high turnover business, whereas the conventional wisdom has always been that good service can only be combined with high margins and low turnover.

The marketing effort is conducted through Press advertising, not in the store itself, and Mr Davies is certain that Debenhams has given a sharp competitive jolt to Cardiff's long-established department stores.

The smaller amount of merchandise on display means, of course that every department has to be replenished more often. But this is done by a different part-time staff, mainly after closing time, in much the same way as a supermarket, leaving the selling staff free to concentrate on the customers.

Debenhams experienced no difficulty finding recruits for so much part-time working. Far from it. A staggering 12,000 applications were received for the 600 jobs available and about half the applicants were interviewed.

It is only ten weeks since the new store opened its doors for business, but Mr Davies is convinced already that the new concept works. The store has taken £1¼m in this period and is well on the way towards Mr Davies's target of earnings of £150 a sq ft by the end of the calendar year.

Northern manager for British Airways

BRITISH AIRWAYS has appointed Mr Roger Phipps as its new manager North of England, based in Manchester. He takes up his appointment on August 1, succeeding Mr Gil Thompson, now director of Manchester International Airport. Mr Phipps has been with the airline for 15 years. He is currently manager terminal operations (ground operations) in London, responsible for all British Airways ground operations at Heathrow and Gatwick airports.

★

SELTAHART HOLDINGS has made the following appointments: Mr David George Hutchings, director of the Midland Bank Industrial Finance Company, joins the board of directors; Mr Ian D. Cuffe, formerly chief executive of Technical Development Capital, a subsidiary of Finance for Industry, joins the board in a part time capacity; Mr Ralph Kinsey, commercial director of Lovell Constructional Services, is appointed as development director from September 1; and Mr Samuel Taylor, formerly financial director of American Medical (Europe), joins as deputy managing director and financial director.

★

WARNER HOME VIDEO, the new video division of WEA Records, has made the following appointments: Mr Geoff Grimes, director of video operations, overall manager of video operations in the UK; Mr David Rozalla, director of marketing for Warner Home Video in the UK; and Mr Jonathan Clyde, director of visual programming for the UK, responsible for all production and acquisition in the area.

★

Mr A. E. Wernly has been appointed to the board of STONE-PLATT INDUSTRIES from August 1 as a non-executive director. Mr Wernly held senior executive appointments within the BICC Group in Europe, the Middle East and Asia.

★

THE LONDON LIFE ASSOCIATION has appointed Mr Michael Short actuary. He succeeds Mr Charles Black who becomes deputy chief executive.

★

Sir Iain Stewart has decided gradually to reduce his commitments and has retired as a director of APV HOLDINGS.

★

Mr J. W. Robertson, senior partner in Wedd Durlacher Mordaunt and Co., has joined the CITY CAPITAL MARKETS COMMITTEE.

★

Mr J. R. Sclater has been appointed a director of UNION DISCOUNT COMPANY. He is managing director of Nordic Bank.

★

Mr Michael C. Hughes of Texasgulf Inc., has been elected chairman of the ZINC and LEAD DEVELOPMENT ASSOCIATIONS in London. He succeeds Mr Tom Borresen of Boliden AB. Mr Keith Hendrick of Noranda Mines, Canada, and Mr Peter King of Australian Mining and Smelting (A M and S)have been re-elected deputy chairmen. Mr Hughes is senior vice-president of Texasgulf Export Corporation in London which is responsible for sales in the European area of Texasgulf metals and chemical products.

★

Mr Howard W. Dalton, former exploration manager for the Africa and Middle East region of Amoco Production Company in Houston, Texas, has been appointed managing director of AMOCO (UK) EXPLORATION COMPANY. He replaces Mr A. E. Piper who has returned to the U.S. Both companies are wholly-owned subsidiaries of Standard Oil Company (Indiana).

★

Dr Heinz Reinermann, a member of the executve board of Preussag AG has joined the board of AMALGAMATED METAL CORPORATION as a non-executive director.

★

Mr J. F. Molyneux has been appointed a director of THE ENGLISH ASSOCIATION TRUST.

★

Mr Don Alexander has been appointed director for research and development at DD LAMSON.

★

Mr Michael J. Downer has been appointed company secretary of R. P. MARTIN AND CO.

★

Mr John Drew has been appointed director of corporate affairs for RANK XEROX. He has the overall responsibility for advising international headquarters' management and the functional groups as well as the company's overseas operating units on public affairs, public relations and social policy. Mr Drew was formerly head of internatonal affairs for Rank Xerox.

★

AVIATION AND GENERAL INSURANCE COMPANY has reappointed Mr D. S. Craigen and Mr P. R. Dugdale, chairman and deputy chairman respectively.

★

WINCHESTER BOWRING has made Mr J. E. Sparkes an assistant director.

★

Sir Edgar Beck, who was appointed managing director of JOHN MOWLEM AND CO. in 1958, and who relinquished the chairmanship in 1979, has retired from the board. He has accepted the board's invitation to become president.

★

CURRYS LIMITED has made the following appointments: Mr Richard Ford, marketing director of Currys (Retail) and Mr Roger Dickinson, a main board director of Currys Limited and managing director of CGS Limited, are both appointed directors of Carousel Colourhire—the Currys TV and video rental operation.

Mr Arthur Murray, managing director of Carousel Colourhire, also joins the board of Currys (Retail) Limited.

★

Mr Phillip A. Lowe has been appointed commercial director of YORKSHIRE CHEMICALS.

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The subdivisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Allied Leather Inds. Grosvenor Victoria Hotel, SW, 12.00
Brook Street Bureau of Mayfair, Europa Hotel, Grosvenor Square, W. 12.00
Commercial Bank of Near East 107-112 Leadenhall Street, EC. 11.00
Energy Services and Electronics, Institute of Directors, 116 Pall Mall, SW, 12.00
Lesney Products, Connaught Rooms, Great Queen Street, WC. 11.30
BOARD MEETINGS—
Finals:
Associated Leisure
Eastern Produce (Hldgs)
Latham (James)
May and Hassall
Mercantile House Hldgs
Rogner Hldgs
Toothill (R. W.)
DIVIDEND & INTEREST PAYMENTS—
BSA Grp 0.5p
Bankers Inv Tst Deb 2pc
Blue Circle Inds Ln 4½pc
Border Breweries (Wrexham) 3.6p
Bowater Can 7.25p
Bristol Waterworks 4.9pc (mnly 7pc)
Max Cons 2.45pc, Do 3.5pc (mnly 5pc) Max 1.75pc
British Home Stores 2.75p
British Shoe Corp Ln 3½pc
British Syphon Inds 1.35p
Charter Tst and Agency Ln 2¼pc
Cole (D. H.) 2p
Colmaf (E. Avon) Invs Ln 4pc
Courtaulds 5pc Prf 1.75pc, Do Ln 2½pc
DRG 3p
Delta Group Ln. 3.75pc
Dreamland Electrical Appliances 0.85p
Electrical and Industrial Secs 3.078p
External Inv Tst 4.5p
Finchley Finance Ln 3½pc
Freemans (Lendon SW9) Deb 3½pc
Garner Booth 3.85p
Gopens Consd 4p
Hanger Inv Deb 3½pc
JB Holdings 1.5p
Lee Cooper 1.6875p
Leyland Paint and Wallpaper 1p
Lindsay Dn. 3½pc
Lloyds Eurofinance Gtd. Fltg. Rate Nts. 1990 7½pc
London and Northern Grp. 2.35p
MacDonald Martin Distilleries A 8.5p, Do. B 4.25p
Manor Natl. Motors 10½pcPf. 5.25pc
Midland Marts (USM) 2.5p
Minster Assets 2.4p
Morgan Crucible Db. 4½pc. Do. Lns. 2½, 3½pc
Nurdin and Peacock 2.625p
Rangkali 1p
Pratt (F.) Eng. Cpn. Ln. 4pc
Pritchard Services Grp. 2.5p
Rugby Portland Cement 2.5p
Rush and Tompkins Grp. 2.5p
Scott and Robertson 0.765p
Scottish Ontario Inv. 2.15p
Selincourt 0.7p
Smith (W. H.) and Son (Hldgs.) A 3.2p, Do. B 0.64, Do. Db. 4pc. Do. Lns 2½, 3½pc
Sun Alliance Insurance London 18p
Tarmac 10.5p, Do Db. 1987-92 3½pc
Telephone Rentals 6.25p
Tootal 1.25p
Transatlantic and Gen. Invs. 3.9p
Ulster TV A. 3p
Walker (J. O.) 1p
Welico Hldgs. 0.4p
Whitbread Lns. 3½, 5½pc
Yale Cattle 1.2p

TOMORROW

COMPANY MEETINGS
Belgrave (Blackheath), Belgrave Works, Belgrave Road, Halesowen, West Midlands, 10.30
Chesterfield Properties, Avery House, 1 Avery Row, W. 11.00
Fidelity Radio, Canard Intnl. Hotel, 1 Shortlands W. 10.30
Inter-City Inv. Tst., Winchester House, 100 Old Broad Street, EC. 10.30
Jermyn Investment, 6-11 Agar Street, WC. 12.00
Jove Inv. Tst., 44 Bloomsbury Square, WC. 12.30.
London and Overseas Freighters, Baltic Exchange, 14-20 St Mary Axe, EC. 11.00
Morgan Crucible, Cafe Royal, 68 Regent Street, W. 11.30
Sladdil (William), Gonville Hotel, Cambridge, 12.45
Young and Co.'s Brewery, West Centre Hotel, Lilley Road, SW, 12.00
BOARD MEETINGS—
Finals:
Birmingham Mint
Fairdale Textiles
Highgate Optical and Industrial
Imperial Continental Gas
Intaaun Leisure Group
Marston, Thompson and Evershed
Watson (R. Kelvin)
Interims:
Lincroft Kilgour
Lonsdale Universal
Macpherson (Donald)
Winterbottom Energy Tst
DIVIDEND AND INTEREST PAYMENTS
Associated Sprayers 0.5p
Baird (William) 7.35p
Commercial Bank of Near East 27½p
General Scottish Trust 1.9p
House of Fraser Db. 4pc
Lafarge FFr 17.25
Law Land 0.95p
M and G Fund of Invest. Tst. shs. Income 2.15p
St Gobain-Pont-a-Mousson FFr 12.2
Young and Co.'s Brewery A ord. and n.v. ord. 5p
Young Companies Inv Tst 3.8p

WEDNESDAY JULY 8

COMPANY MEETINGS—
Argus Press, Pixmore Avenue, Letchworth, Hertfordshire, 11.00
Barec Group, Barec House, 1255, Whetstone High Road, N. 12.00
Bishop's Stores, Stonefield Way, Ruislip, Middx. 2.00
Carless Capel and Leonard, Tallow Chandlers Hall, 4, Dowgate Hill, EC. 12.00
Foster Brothers Clothing, St. Johns Hotel, 551, Warwick Road, Solihull, West Midlands, 12.00
Foster (John), Black Dyke Mills, Queensbury, Bradford, 12.30
Guthrie Corp., Chartered Insurance Institute, 20, Aldermanbury, EC, 11.30
Heath (C. I.), Baltic Exchange, 14-20, St Mary Axe, EC, 12.00
Hoechst Finance, Hoechst House, Salisbury Road, Hounslow, 12.00
House Property Co. of London, Eagle House, High Street, Wimbledon, SW, 12.00
London Sumatra Plantations, Winchester House, 100 Old Broad Street, EC, 11.30
Modern Engineers of Bristol (Hldgs.), Dixon Road, Brislington, Bristol, 12.00
Parkland Textile (Hldgs.), Parkway Hotel, Leeds, 12.30
Ryerson Hotels, Mount Pleasant Hotel, Calthorpe Street, WC, 12.00
Williams (W.) and Sons, St. Mellons County Club, St. Mellons, Cardiff, 11.30
BOARD MEETINGS—
Finals:
Bulmer (H. P.)
Caledonian Assoc. Cinemas
Capital Reserve Fund
Hollas Group
Radiant Metal Finishing
Routledge and Kegan Paul
Waddington (John)
Interims:
Assoc. Fisheries
Homiray
M. and G. Dual Trust
DIVIDEND AND INTEREST PAYMENTS
Allied Leather Inds. 3.75p
Bailey (Ben) Construction 0.44p
Compagnie Financiere de Suez FFr 23
Fairline Boats 0.5p
Fidelity Radio 0.1p
Hewden Stuart Plant 0.8p
House Property Co of London 3½p
Keystone Inv 4p
London and Overseas Freighters 1.072p
Rowntree Mackintosh 4.75p
Sindall (William) 5.5p
Spring Grove Services 1.5p

THURSDAY JULY 9

COMPANY MEETINGS—
Atkins Brothers (Hosiery), The Old Cottages, Lower Bond Street, Hinckley, 12.00
Barlows, Chesstow House, 16, Chesstow Street, Manchester, 12.00
Clifford (Charles) Inds., Deepool Mills, Deepool Lane, Stirchley, Birmingham, 12.15
Dopanakande Rubber Estates, 1-4, Great Tower Street, EC, 12.00
Hay (Norman), Excelsior Hotel, Heathrow Airport, Bath Road, West Drayton, Middx., 11.00
Helical Bar, St Ermin's Hotel, SW, 2.30
Rowlinson Constructions, London House, London Road South, Poynton, Stockport, 12.00
Southend Stadium, Stadium Road, Southend-on-Sea, 11.30
Third Mile Inv, Cereal House, 58, Mark Lane, EC, 12.00
Weeks Associates, Royal Station Hotel, N. Humberside, 12.00
BOARD MEETINGS—
Finals:
Baileys of Yorkshire
Braithwaite and Co Engineering
British Building and Engineering Apps.
Guthrie King
Kinta Kellas Rubber Estates
Meyer (Montague L.)
Mitchell Somers
Monk (A.)
Oil and Assoc. Inv. Tst
Interims:
Greenfields Leisure
Imperial Group
Sotheby Park
Watson and Philip
DIVIDEND & INTEREST PAYMENTS—
Advance Services 2.3p
Associated Paper Inds. 0.8p
Bank of New South Wales 12cts
Barlows 4p
Bellway 3p
Berec Group 2.1p, 10pcPf. 3.5pc
Bishop's Stores Ord. and A Ord. (N-V) 2p
British-Borneo Petroleum Syndicate 8p
Dopanakande Rubber Estates 2p
Hapoalim Intnl. Gtd.Fltg. Rate Notes 1985 US$798.15
Heath (C. I.) 7.4p
Parkland Textile (Hldgs.) Ord. and A Ord. 2.1p
Slingsby (H. C.) 1.8p
Third Mile Inv. 0.875p
Vereeniging Refractories Pf. 2½pc

FRIDAY JULY 10

COMPANY MEETINGS—
Associated British Foods, Connaught Rooms, Great Queen Street, WC, 11.00
Hill Samuel Group, Plaisterers Hall, London Wall, EC, 12.00
Property and Reversionary Inv. Corp., Albany House, Petty France, SW, 12.00
United Engineering Inds., Midland Hotel, Manchester, 12.00
BOARD MEETINGS—
Finals:
Ashley Ind. Tst
Dennis (James H.)
Highgate and Job
Lennons Group
Thorn EMI
Interims:
Cronite Group
DIVIDEND & INTEREST PAYMENTS—
Alliance and Dublin Consumers Gas Deb. 2pc
Altifund Income 8.75p, Capital 0.4375p
Browning Ferris Inds. 21 cents
Canal Randolph Corp. 15 cents
Chesterfield Properties 3.5p
Dares Estates 0.65p
Early (Charles) and Marriott (Witney) 6pcPf 2.1pc
Eucalyptus Pulp Mills 6p
Gatteric Corp. 2½p
Imperial Chemical Inds. Ln. 4pc
Imperial Gold Storage Supply 7.83747p
Ireland 7½pc 1981-83 3¾pc
Kalsey Inds. 2.5p
Lanca 2.4p
Land Securities Inv. Trust 7p
London County 6¼pc 1986-90 3¼pc
Minty 7p
North Midland Construction 0.65p
Porter Chadburn 1.3p
Property Reversionary Inv. Corp. 2p
Rowlinson Construction Group 0.425p
Southend Stadium 0.43p, Pfd. 3.5p
Stockholders Inv. Trust 1.25p
Treasury Ln. 9½pc 1984-86 4¼pc
Treasury Stk. 11¼pc 1991 5¾pc
United Engineering Inds. 2.75p

SATURDAY JULY 11

DIVIDEND AND INTEREST PAYMENTS
FFI (UK Finance) Lns. 5¼, 9½, 5¾pc

Business in Parliament

TODAY

Commons—Private members' motions. Deep Sea Mining (Temporary Provisions) Bill, remaining stages. Merseyside Development Corporation (Vesting of Land) Orders.

Lords—Betting and Gaming Duties Bill, third reading. Education Bill, committee. European Communities (Definition of Treaties) (Yugoslavia Agreements) Order.

Select Committees — Education. Subject: second scrutiny session 1981. Witness: Mr Mark Carlisle, Education Secretary. 4.30 pm, room 6. Energy. Subject: energy conservation. Witnesses: Royal Institute of British Architects; Royal Institute of Chartered Surveyors; 4.30 pm, room 5. Treasury. Subject: financing of nationalised industries. Witnesses: Sir Peter Parker, Sir Denis Rooke; 4.30 pm, room 15. Public Accounts. Subject: control of Civil Service manpower.

TOMORROW

Commons—UK defence programme, debate on White Paper. British Telecommunications Bill, Lords Amendments.

Lords — British Nationality Bill, committee. Road Traffic (car-sharing arrangements) (NI) Order. Supplementary Benefits (Requirements and Resources) Amendment Regulations.

Select Committees—Employment. Subject: legal immunities of trade unions. Witnesses: TUC; 4 pm, room 8. Environment. Subject: Department of Environment's housing policies.

WEDNESDAY

Commons—Supply day debate on regional policy. Debate on Opposition motion on higher education. Forestry Bill, Lords amendments. Antigua Termination of Association Order. Furniture Development Council (Dissolution) Order.

Lords—Transport Bill, report. Armed Forces Bill, committee. Zoo Licensing (No. 2) Bill, third reading.

Select Committees—Defence. Subject: Royal Dockyards. Witnesses: Ministry of Defence and Council of Civil Service Unions; 10.30 am, room 15. Education. Subject: secondary school curriculum and exams. Witnesses: Schools Council. Employment. Subject: legal immunities of trade unions. Witness: Mr James Prior, Employment Secretary; 3.30 pm, room 10. Energy. Subject: North Sea oil depletion policy. Witnesses: Shell, Esso; 4.15 pm, room 6. Treasury. Subject: efficiency and effectiveness of Civil Service.

THURSDAY

Commons—Supply day debate on Army. Supreme Court Bill (Lords) remaining stages.

Lords—Iron and Steel Bill, third reading. Criminal Attempts Bill, third reading. N.I. Act 1974 (Interim Period Extension) Order. N.I. (Emergency Provisions) Act 1978 (Continuance) Order. Merseyside D.C. (Vesting) Order. Atomic Energy (miscellaneous provisions) Bill, committee. Aviation Security Fund (Third Amendment) Regulations.

FRIDAY

Commons—Private Members' Bills.

INSURANCE

Lloyd's Bill immunity clause still opposed

BY JOHN MOORE

THE INCORPORATION of a legal immunity into Lloyd's private Bill of Parliament continues to provoke controversy. Although attempts to remove the provision from the Bill by a group of Lloyd's underwriting members has failed at the House of Commons committee stage, extensive changes to the immunity clause are still being sought.

Unless Lloyd's compromises over the legal immunity clause, it faces further opposition by a group of Conservative Party MPs at the third reading stage of the Bill.

Already, the clause — which originally offered the widest possible protection to the society of Lloyd's and its officers against legal action—has been narrowed in its scope. Essentially, the new immunity clause offers protection against legal action in the form of a suit for damages by aggrieved parties.

Under the new arrangement, anybody outside the Lloyd's community — such as a policyholder — can sue the society of Lloyd's for damages or any other forms of liability. Anyone inside or outside Lloyd's can sue members of the community such as the underwriters and brokers.

But members of Lloyd's may sue the society of Lloyd's for every other form of relief except damages.

They may seek an injunction, they may seek an order of mandamus, or they may seek a legal prohibition. But they cannot seek damages. This restraint on suit applies only where action is taken in good faith.

The protection offered by the immunity will allow a new Lloyd's ruling council — to be created by the new legislation — to intervene with confidence in the market to prevent abuses.

"Otherwise, there is a risk that they will be unduly timid and cautious because they will be looking over their shoulder, fearing that they will be a subject of damages if they intervene wrongly," Mr Michael Meacher MP, chairman of the Commons committee, has said.

Critics of the proposal say that the proposal would ensure that Lloyd's is a law unto itself and that the measure would in fact place Lloyd's above the law. No other comparable body enjoys such protection.

Politically, argue some Conservative MPs, the immunity could create problems in the future should they press measures to deprive trades unions of some of their immunities.

Members of Lloyd's, in a number of cases, are unhappy with the immunity clause because it could prevent them seeking recovery in the courts for actions which have been taken in the Lloyd's community against their interests.

Others argue that Lloyd's should not be protected by a powerful immunity if any conflicts of interest are preserved in the market's structure which could give rise to abuse. If conflicts of interests produce abuses, the members would have no right of redress for damages.

Lloyd's fears that without the immunity it would not be able to act with confidence in the market to deal with problems, particularly to take action against some of the larger brokers. It also argues that through a recourse to the courts for damages a form of back-door mutuality might be offered to the members.

This, says Lloyd's, would be contrary to the principles of Lloyd's. All members accept individually the principle of unlimited liability whereby they would be liable to the full extent of their wealth to meet insurance losses.

Members who sued Lloyd's would be suing the whole membership of Lloyd's. This, says Lloyd's, would be destroying the whole principle on which the market works—each for himself, not one for the other.

Lloyd's has dismissed the possibility of arranging insurance to protect its council against suits for damages. It argues that premiums on such a policy would be expensive and have to be borne by the membership.

More importantly, such insurance would have to be placed outside, as well as inside Lloyd's, because the Lloyd's market would not have enough capacity to underwrite such a policy. Participating insurers, outside the Lloyd's market, who underwrite such a policy would be Lloyd's own competitors.

Should litigation arise, which might lead to a claim on the policy, underwriters could insist on taking over the management of the litigation. In this way, Lloyd's own competitors might gain access to confidential information within the market.

LOCAL AUTHORITY BOND TABLE

Authority (telephone number in parentheses)	Annual gross interest %	Interest payable	Minimum sum £	Life of bond Year
Basildon (0268 22881)	13¾	½-year	5,000	6-10
Knowsley (051-548 6555)	12½	½-year	1,000	1-3

Australian stockbroker inquiry

By Colin Chapman in Sydney

AUSTRALIAN stock exchanges have failed in a bid to prevent their commissions and work practices being investigated by the Trade Practices Commission.

The Trade Practices Commission has given an undertaking, at a special court hearing in Melbourne, to go ahead with an inquiry into the stockbroking industry "as quickly as possible. As a result, the Australian Merchant Bankers' Association have withdrawn their application to the Federal High Court for a writ of mandamus requiring the commission to undertake the investigation.

Intense takeover and merger activity has been helping to create a mini trading boom for the stock markets in Australia. Against this background, banks want the stockbroking industry *opened up to competition.*

They want to see new broking firms created and are demanding a system of negotiated commission rates to replace the existing system of fixed commissions.

At the weekend, Mr Geoffrey Allen, director of the Australian Industries Development Association, said the issue was one of "deep relevance to Australian industry.

"An efficient securities market, which accurately values the net worth of Australian public companies, is of fundamental importance," he said.

Assuag sales rise

ASSUAG, the Swiss watchmaker, reports a rise of 21 per cent in sales for the first four months of 1981. Sales of electronic watches were 36 per cent ahead while finished watches are running 27 per cent up on 1980, writes our Financial Staff.

Allianz reports gain in premium income

BY OUR FINANCIAL STAFF

ALLIANZ VERSICHERUNGS, the West German insurance group which last month acquired 28 per cent of the Eagle Star group of the UK, has achieved 11 per cent growth in world-wide premium income for the first five months of this year.

Shareholders at the annual meeting in Munich were told that group business in 1981 up to the end of May had generally been satisfactory. Premium income in the five months had risen to DM11.6bn ($4.8bn) from DM10.5bn.

Herr Wolfgang Schieren, managing board chairman, said income from domestic private insurance had climbed by more than 10 per cent. He added, however, that domestic demand for industrial and large commercial insurance had been hit by the economic turndown and high interest rates.

New business in these trading areas had increased only 2 per cent compared with a rise of no less than 12 per cent in the opening five months of 1980.

For 1980 as a whole, Allianz, which is the largest composite insurer in Germany, reported net profits of DM 203.7m, a performance which was marginally up on the DM 199.3m of 1979.

The results were announced seven weeks ago and at the time Allianz said it expected both foreign and domestic business in 1981 to grow by "around the market average" despite a rising claims experience.

The company acquired its stake in Eagle Star in a surprise share market raid followed, a few days later, by a tender offer aimed at taking its interest up to 29.9 per cent.

Receiver attempts to keep Rollei Singapore going

BY OUR FINANCIAL STAFF

A CONCERTED attempt to keep Rollei Singapore a going concern is being made by the company's receiver, Peat Marwick Mitchell.

Peat says that one option open to it is the sale of all or part of the business. In the meantime, all 4,000 employees at the camera company have been urged to stay at work.

Rollei Singapore entered bankruptcy proceedings last week following the collapse of its one-time parent company, Rollei of West Germany.

Rollei Singapore is today a separate entity but its business remains heavily intertwined with the German group to which all patents, licences and rights to the Rollei name belong.

Last week Rollei Singapore said that its assets were not sufficient to absorb the losses of Rollei in Germany. It added that the collapse of the German group had removed from Rollei Singapore all research and development support.

Rollei Singapore is controlled by Norddeutsche Landesbank which owns 75 per cent of the company. The 25 per cent minority interest is held by a local bank, the Development Bank of Singapore.

Earlier this year, having pumped more than DM 600m (U.S.$250m) into Rollei which it had little hope of recovering, Nord LB sold its Rollei shares.

Hutchison unit may be sold

By Adrian Boven in Hong Kong

HUTCHISON Whampoa has been approached by third parties interested in buying its 77.3 per cent stake in a small listed property subsidiary, Mohan's Property and Investment which last year made after tax profits of HK$1.68m (US$300m).

Mohan shares were suspended from trading last Thursday after bid rumours had pushed them up to HK$1.55 from the 90 cents trading level of recent weeks.

Hutchison could not reveal the identities of the potential buyers or the terms they have offered but if a deal goes through, a general offer will be made on the same terms as dictated by the Hong Kong Takeover Code.

Mohan went public in 1973 and became a Hutchison subsidiary in 1976 after it encountered financial problems.

The company has almost half its assets in short term deposits. Net profits rose 40 per cent from HK$1.2m in 1980 because of high interest rates.

Losses mount at Ensidesa

By Our Financial Staff

ENSIDESA, SPAIN'S state-owned steel group, has moved deeper into the red for 1980 and expects even heavier losses during the current 12 months.

Last year the group had a loss of Pts 15.6bn ($160m) as a result of a sharp rise in financial costs, against Pts 5.7bn in 1979. This year losses of betweeen Pts 17bn and Pts 18bn are forecast.

Steel production fell to 4.69m tonnes from 4.88m in 1979, mainly because of industrial action. Net sales rose to Pts 114.8bn from Pts 103.8bn.

PENDING DIVIDENDS

For the convenience of readers the dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements, except where the forthcoming board meetings (indicated thus*) have been officially published. It should be emphasised that the dividends to be declared will not necessarily be at the amounts or rates per cent shown in the column headed "Announcement last year."

	Date	Announcement last year
Acrow	July 29	Final 1.5
Alexanders Discount	July 21	Int. 5.5
Allnatt London	July 17	Final 3.2
*Assoc. Newspapers	July 16	Int. 4.5
Bath and Portland	July 29	Int. 1
*Brown (J.)	July 24	Final 2.5
Cawoods	July 26	Final 4.46
Crown House	July 21	Final 3
Daily Mail and Gen. Tst.	July 16	Int. 9.5
Davy Corpn.	July 24	Final 4.7
*Distillers	July 16	Final 7.75
Dixons Photographic	July 31	Final 2.06
Dowty	July 21	Final 2.5
*Eastern Produce	July 6	Final 3.22
Fitch Lovell	July 31	Final 3.71
Gestetner	July 16	Int. 2.5
*Greene King	July 9	Final 3.5
GUS	July 17	Final 7.125
Hawley Leisure	July 22	Int. 0.6
Hogg Robinson	July 22	Final 2.7
*IC Gas	July 7	Final 13.0
Illingworth Morris	July 18	Final nil
*Imperial Group	July 9	Int. 2.75
*Inchcape	July 23	Final 12.5
Initial Services	July 21	Final 5.25
Lep Group	July 31	Final 12.5
*Lloyds Bank	July 17	Int. 7.5
LRC Int.	July 14	Final 1.75
Lonrho	July 17	Int. 3
*Magnet and Southerns	July 14	Final 4.5
*Mayer (Mont. L.)	July 9	Final 4
MFI	July 22	Final 1.52
*Midland Bank	July 31	Int. 7.5
*NatWest Bank	July 28	Int. 8.75
Prestige Grp.	July 26	Int. 2.5
*Rank Org.	July 13	Int. 4.8
Ratners (Jewellers)	July 10	Final 1.925
Rothmans International	July 8	Final 2.11
Stock Conversion	July 30	Final 2.65§
*Thorn EMI	July 10	Final 10.575
Town and City Props	July 4	Final 0.01
*Unigate	July 16	Final 3.7
*Union Discount	July 15	Int. 9.0
United Gas Inds	July 10	Final 3.5
Ward and Goldstone	July 28	Final 4.5

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

BASE LENDING RATES

A.B.N. Bank	12 %
Allied Irish Bank	12 %
American Express Bk.	12 %
Amro Bank	12 %
Henry Ansbacher	12 %
AP Bank Ltd.	12 %
■ Arbuthnot Latham	12 %
Associates Cap. Corp.	13 %
Banco de Bilbao	12 %
BCCI	12 %
Bank of Cyprus	12 %
Bank of N.S.W.	12 %
Banque Belge Ltd.	12 %
Banque du Rhone et de la Tamise S.A.	12½%
Barclays Bank	12 %
Beneficial Trust Ltd.	13 %
Bremar Holdings Ltd.	13 %
Bristol & West Invests.	13 %
Brit. Bank of Mid. East	12 %
■ Brown Shipley	12½%
Canada Perm't Trust	13 %
Cayzer Ltd.	12 %
Cedar Holdings	12 %
■ Charterhouse Japhet	12 %
Choulartons	12 %
C. E. Coates	12 %
Consolidated Credits	12 %
Co-operative Bank	*12 %
Corinthian Secs.	12 %
The Cyprus Popular Bk.	12 %
Duncan Lawrie	12 %
Eagil Trust	12 %
E. T. Trust Limited	12 %
First Nat. Fin. Corp.	14 %
First Nat. Secs. Ltd.	14 %
Robert Fraser	12 %
Antony Gibbs	12 %
Greyhound Guaranty	12 %
Grindlays Bank	‡12 %
■ Guinness Mahon	12 %
■ Hambros Bank	12 %
Heritable & Gen. Trust	12 %
■ Hill Samuel	§12 %
C. Hoare & Co.	†12 %
Hongkong & Shanghai	12 %
Knowsley & Co. Ltd.	14 %
Langris Trust Ltd.	12 %
Lloyds Bank	12 %
Mallinhall Limited	12 %
Edward Manson & Co.	13 %
Midland Bank	12 %
■ Samuel Montagu	12 %
■ Morgan Grenfell	12 %
National Westminster	12 %
Norwich General Trust	12 %
P. S. Refson & Co.	12 %
Ryl. Bk. Canada (Ldn.)	12 %
Slavenburg's Bank	12 %
E. S. Schwab	13 %
Standard Chartered	‖12 %
Trade Dev. Bank	12 %
Trustee Savings Bank	12 %
TCB Ltd.	12 %
United Bank of Kuwait	12 %
Whiteaway Laidlaw	12½%
Williams & Glyn's	12 %
Wintrust Secs. Ltd.	12 %
Yorkshire Bank	12 %

■ Members of the Accepting Houses Committee.
* 7-day deposits 9%, 1-month 9¾%. Short term £4,000/12 months 11.85%.
† 7-day deposits on sums of £10,000 and under 9%, up to £50,000 9½% and over £50,000 10%.
‡ Call deposits £1,000 and over 9%.
§ Demand deposits 9½%.
‖ 21-day deposits over £1,000 10½%.

RECENT ISSUES

EQUITIES

Issue Price p	Amount Paid Up	Latest Renunc. Date	1981 High	1981 Low	Stock	Closing Price p	+ or −	Div. or Amount	Times Covered	Gross Yield	P/E Ratio
—	F.P.	—	£27	£21½	Allegheny Int. Inc.	£23⅞	−⅜	Q$1.40	—	3.0	—
$35	F.P.	22/7	37	30	AlliedResidential 10p	30		b2.45	2.0	11.7	6.5
Ir£0.50	F.P.	19/6	40	33	✻Bula Resources	33	−1	—	—	—	—
$85	F.P.	24/6	140	105	✻Business Comp Syst	116	.....	u1.0	6.7	1.2	17.3
75	F.P.	17/7	91	79	Cambridge Elec.	91	+1	b3.7	2.2	5.8	9.2
‖‖	F.P.	—	25	22	††Energy Sources	22	.....	—	—	—	—
—	F.P.	—	7	6	††Explora Gold	7	.....	—	—	—	—
$10	F.P.	27/5	14	13	F'st Charlotte Ast Tst	13	.....	—	—	—	—
$10	F.P.	—	21	17	✻ICC Oil services	21	.....	—	—	—	82.1
95	Nil	—	85	78	KCA Drilling	78	−3	b3.75	1.7	6.9	10.1
$12	F.P.	—	640	595	Mexico Fund	610	.....	—	—	—	—
$51	F.P.	20/7	69	61	✻M'film R'prograph.	65	.....	b2.5	1.4	5.5	18.8
100	F.P.	24/7	107	98	Murray Technology	101	.....	—	—	—	—
‖‖	F.P.	—	£37	£30½	Norsk Data	£35	.....	Q$3.5%	8.9	0.3	38.4
$44	F.P.	30/6	58	42	✻Selec TV	44	.....	—	—	—	—
$88	F.P.	—	90	80	✻Stenelco	89	−1	—	—	—	27.3
$165	F.P.	3/8	205	190	✻Star Computer	202	.....	2.0	4.3	1.4	21.1
$90	F.P.	31/7	97	92	✻Trident Comp.Serv.	97	+2	bd1.5	4.0	2.2	18.3
$80	F.P.	14/7	91	85	✻UnitedCeramicDist	89	.....	b4.2	1.9	6.7	10.2
100	Nil	—	4pm	2pm	Utd. Comp. & Techgy	3pm	−1				
$88	F.P.	—	98	89	✻Zygal Dynamics	98	.....	u0.75	6.3	1.1	15.4

FIXED INTEREST STOCKS

Issue price £	Amount Paid Up	Latest Renunc. Date	1981 High	1981 Low	Stock	Closing Price £	+ or −
—	F.P.	—	110	104	Aitken Hume 10% Cnv. Uns. Ln. 1990/91	108	+1
100‖	F.P.	22/7	101½	95	BOC 9% Cnv. Uns. Ln. 2001-6	101	+½
¶¶	F.P.	26/6	30p	16p	SPC 7.75% Non. Cum. Prf.	30p	+1
99.37	F.P.	16/7	99⅝	97½	Finland 14¼% Ln. 1986	97½	−⅛
98½	£25	—	25¾	25	Inco 15¾% Uns. Ln. 2006	25½	+½
99.486	F.P.	25/6	99⅛	95¾	International Bk. 13½% Ln. 1986	97¾	.....
¶97	£10	—	10	9¾	Mid-Kent Water 9% Red. Prf. 1987	9¾	−¼
¶100	£10	28/8	8½	7½	Mid-Southern Wat. 9% Red .Pref. '86	7¾	.....
‖	Nil	—	4½pm	2pm	Mount Charlotte 9½% Cnv. Ln. 1995-2000	3pm	+1
99	F.P.	27/8	99	93	Newcastle Water 7¾% Red. Pref. 1986	93	.....
• •	F.P.	10/7	92	90	Photax 11% Cum. Pref.	90	.....
100‖	Nil	—	7½pm	5pm	Prop. Hld. & Inv. Tst. 8¼% Cnv. Ln.	7½pm	.....
¶98	F.P.	28/8	96½	92½	Sund. & S. Shields Water 8% Red. Prf. '87	92½	.....
98¾	F.P.	—	98½	90¾	Swansea (City of) 13¼% Red. 2006	92½	−¼

"RIGHTS" OFFERS

Issue Price p	Am'unt paid up	Latest Renunc. Date ●	Latest Renunc. Date ■	1981 High	1981 Low	Stock	Closing price p	+ or −
190	F.P.	6/7	4/9	256	222	AGB	250	+6
64	F.P.	1/6	10/7	87	81	Amal. Power Eng.	86	.....
190	F.P.	1/6	13/7	234	207	Barratt Devs	234	+1
45	Nil	—	—	9pm	6½pm	Brengreen	6½pm	.....
275	Nil	—	—	46pm	36pm	B.P.	36pm	−6
290	Nil	—	—	32pm	20pm	B.P. (H.M.G.)	20pm	−8
500	F.P.	19/6	15/7	£10½	550	Comm. Bk. of Near East	£10½	.....
165	F.P.	3/7	7/8	191	184	Crouch (D)	184	−3
150	F.P.	17/6	15/7	160	152	Elbar	160	.....
375	Nil	—	—	35½pm	30pm	English Association	30pm	−2
30	F.P.	6/7	7/8	87	76	Euro Ferries	87	+8
55	F.P.	12/6	11/8	68	63½	Fine Art	68	.....
255	Nil	—	—	125pm	84pm	Flight Refuelling	115pm	−7
90	Nil	—	—	42pm	31½pm	Geers Gross	40pm	−1
250	F.P.	17/6	24/7	342	269	G.R.E.	342	+8
103	P.P.	—	—	109	66	Hong Kong & Shanghai Bk.	107	.....
205	F.P.	8/6	24/7	270	247	Horizon Travel	268	−1
‖	F.P.	15/6	24/6	102	93	L'nd'n Shop Pr'p 9% Cnv 94-99	95	.....
315	F.P.	26/6	7/8	343	332	Lyle Shipping	332	.....
70	F.P.	17/6	24/7	82	72	Northern Engineering	82	+5
50	Nil	9/7	12/8	23pm	18pm	Old Swan Hotel (H'gate)	19pm	−1
60	F.P.	26/6	7/8	69	62	Second City Props	69	.....
6	P.P.	6/5	21/9	11½	8½	Sterling Credit	10	+¼

Renunciation date usually last day for dealing free of stamp duty. *b* Figures based on prospectus estimate. *g* Assumed dividend and yield. *u* Forecast dividend: cover based on previous year's earnings. F Dividend and yield based on prospectus or other official estimate for 1981. Q Gross. T Figures assumed. ‡ Cover allows for conversion of shares not now ranking for dividend or ranking only for restricted dividends. § Placing price. *p* Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered to holders of ordinary shares as a "rights." ** Issued by way of capitalisation. §§ Reintroduced. ¶¶ Issued in connection with reorganisation, merger or take over. ‖‖ Introduction. □ Issued to former preference holders. ■ Allotment letters (or fully-paid). ● Provisional or Partly-Paid allotment letters. ✻ With warrants. †† Dealings under special Rule. ✻ Unlisted Securities Market. ‡‡ London Listing. ‡ Effective issue price after scrip.

CURRENCIES, MONEY and GOLD

EMS takes the strain

BY JONAS CROSLAND

Once again the European Monetary System is showing surface cracks under the weight of continued high U.S. interest rates. The Belgian franc was back at its floor level against the D-mark and the Belgian National Bank was in the market lending support from time to time. In addition the recent downward trend in Belgian short term rates was halted abruptly last week when the authorities were obliged to increase Treasury bill rates in support of the franc. In fact the rates were increased on four separate occasions last week alone. The high level of U.S. rates has been the major factor behind a general swing against European currencies but the dollar is also a useful haven at the moment in view of the continued tension over Poland and Afghanistan.

Despite this the West German Bundesbank left its key lending rates unchanged after Thursday's meeting of the central council. The authorities may just be willing to sit tight and wait for a fall in U.S. rates to narrow the differential. The Bank of France went one step further. Its seven-day money market intervention rate, effectively the key market rate used by the authorities when altering liquidity levels, was cut from a record 22 per cent to 19.75 per cent. This was in addition to a FFr 24bn injection of funds into the market, the first such move since January. The French franc has failed to react so far although the closure of U.S. centres for Independence Day and sterling's sharp fall have tended to cloud the situation a little. Earlier rumours that the French franc may be withdrawn from the system may now seem a little premature but recent currency trends may give rise to calls for some sort of currency realignment.

THE POUND SPOT AND FORWARD

July 3	Day's spread	Close	One month	% p.a.	Three months	% p.a.
U.S.	1.8825-1.9000	1.8930-1.8940	1.20-1.30c dis	−7.92	2.55-2.65dis	−5.49
Canada	2.2650-2.2810	2.2750-2.2760	1.45-1.55c dis	−7.91	3.60-3.75dis	−6.46
Nethlnd.	5.05-5.10	5.07¾-5.08¾	¾c pm-¼ dis	0.29	1¼-¾ pm	0.79
Belgium	74.40-75.10	74.80-74.90	30-40c dis	−5.61	95-105 dis	−5.34
Denmark	14.25-14.36	14.34½-14.35½	5⅞-6⅞ore dis	−5.23	16½-17⅞ dis	−4.74
Ireland	1.2485-1.2575	1.2525-1.2540	0.25-0.37p dis	−2.97	0.76-0.99dis	−2.79
W. Ger.	4.54-4.58	4.56¾-4.57¾	¼pf pm-¼ dis	—	½ pm-par	0.22
Portugal	120.50-121.25	120.75-120.95	75-145c dis	−10.92	165-325 dis	−8.11
Spain	182.00-183.60	182.80-183.00	115-145c dis	−8.53	285-340 dis	−6.83
Italy	2263-2282	2277-2279	25-28 lire dis	−14.22	73-76 dis	−13.08
Norway	11.40½-11.49	11.45½-11.46½	¼ore pm-1¼ dis	−0.52	2¼-1 pm	0.53
France	10.80½-10.87½	10.84½-10.85½	8½-9½c dis	−9.95	22½-24 dis	−8.57
Sweden	9.65-9.73	9.71½-9.72½	2½-3½ore dis	−3.70	5⅞-6⅞ dis	−2.62
Japan	427-434	432-433	2.60-2.50y pm	7.07	6.17-6.07 pm	5.66
Austria	31.90-32.35	32.20-32.25	par-5gro dis	−0.93	2 pm-8 dis	−0.37
Switz.	3.90-3.94	3.92¼-3.93¼	1¼-¾c pm	3.05	3-2½ pm	2.80

Belgian rate is for convertible francs. Financial franc 76.00-76.10. Six-month forward dollar 4.20-4.30c dis. 12-month 5.70-5.90c dis.

THE DOLLAR SPOT AND FORWARD

July 3	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.8825-1.9000	1.8930-1.8940	1.20-1.30c dis	−7.92	2.55-2.65dis	−5.49
Ireland†	1.5050-1.5135	1.5100-1.5120	0.60-0.70c dis	−5.16	0.85-1.15dis	−2.78
Canada	1.2017-1.2028	1.2018-1.2021	0.05-0.08c dis	−0.65	0.24-0.28dis	−0.86
Nethlnd.	2.6790-2.6870	2.6830-2.6870	1.90-1.80c pm	8.27	4.30-4.20 pm	6.33
Belgium	39.49-39.56	39.51-39.53	10-5c pm	2.28	10-5 pm	0.76
Denmark	7.5600-7.5800	7.5700-7.5800	1.70-1.30ore pm	2.38	1.40-1.00 pm	0.63
W. Ger.	2.4060-2.4175	2.4135-2.4145	1.58-1.52pf pm	7.70	3.54-3.48 pm	5.82
Portugal	63.80-64.20	63.80-64.00	par-30c dis	−2.82	par-80 dis	−2.50
Spain	96.50-96.70	96.65-96.70	5c pm-5 dis	—	20-40 dis	−1.34
Italy	1200½-1205	1203-1205	6-7 lire dis	−6.49	24½-27 dis	−8.57
Norway	6.0400-6.0560	6.0400-6.0500	4.10-3.70ore pm	7.74	9.75-9.35 pm	6.31
France	5.7225-5.7450	5.7300-5.7350	½-1½c dis	−2.09	2½-4 dis	−2.27
Sweden	5.1200-5.1300	5.1200-5.1300	2.10-1.90ore pm	4.68	4.10-3.90 pm	3.12
Japan	228.50-228.50	228.30-228.40	2.60-2.45y pm	13.27	6.15-6.00 pm	10.64
Austria	16.98½-17.02	17.01-17.02	11¾-9¾gro pm	7.40	24-20 pm	5.17
Switz.	2.0670-2.0750	2.0725-2.0735	1.96-1.86c pm	11.06	4.35-4.25 pm	8.30

† UK and Ireland are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency.

GOLD

	July 3		July 2	
Gold Bullion (fine ounce)				
Close	$413-415	(£218-219½)	$413 416	(£219-220½)
Opening	$413-415	(£218¾-220¼)	$408-411	(£215¼-216¾)
Morning fixing	$413.75	(£218.165)	$410	(£217.046)
Afternoon fixing	$414	(£217.952)	$414.50	(£218.849)
Gold Coins				
Krugerrand	$426-427	(£225-225½)	$427-428	(£226½-227)
1/2 Krugerrand	$219½-220¼	(£116-116½)	$220-221	(£116¼-117¼)
1/4 Krugerrand	$112-113	(£59¼-59¾)	$112-113	(£59½-60)
1/10 Krugerrand	$45¾-46¾	(£24¼-24¾)	$45¾-46¾	(£24¼-24¾)
Mapleleaf	$415½-418½	(£219½-221)	$416-419	(£220¾-222¼)
New Sovereigns	$103¾-104½	(£54¾-55¼)	$103½-104½	(£55-55½)
King Sovereigns	$110-112	(£58-59)	$110-112	(£58¼-59¼)
Victoria Sovs	$110-112	(£58-59)	$110-112	(£58¼-59¼)
French 20s	$108-114	(£57-60¼)	$109-115	(£57¾-61)
50 pesos Mexico	$509-516	(£269-272½)	$513-517	(£272¼-274½)
100 Cor. Austria	$398-406	(£210¼-214½)	$401-407	(£212¾-216)
$20 Eagles	$545-550	(£288-290½)	$544½-549½	(£289-291½)

OTHER CURRENCIES

July 3	£	$		£ Note Rates
Argentina Peso	8621-8641†	4550-4560†	Austria	32.00-32.30
Australia Dollar	1.6465-1.6505	0.8730-0.8735	Belgium	77.50-78.30
Brazil Cruzeiro	172.27-173.27	90.95-91.40	Denmark	14.25 14.40
Finland Markka	8.521-8.53 0	4.4960-4.4980	France	10.79 10.89
Greek Drachma	108.602 111.826	58.80-59.00	Germany	4.55½-4.59½
Hong Kong Dollar	10.58½-10.60½	5.5890-5.5920	Italy	2210 2260
Iran Rial	153.75*	80.20*	Japan	431 437
Kuwait Dinar(KD)	0.530-0.536	0.2826-0.2830	Netherlands	5.06½-5.09½
Luxembourg Frc.	74.80-74.90	39.51-39.53	Norway	11.40 11.52
Malaysia Dollar	4.4295-4.4395	2.3385-2.3405	Portugal	118-122
New Zealand Dlr.	2.2320-2.2370	1.1835-1.1845	Spain	176¼-183¼
Saudi Arab. Riyal	6.40-6.46	3.4125-3.4175	Sweden	9.64-9.74
Singapore Dollar	4.0710-4.0810	2.1490-2.1510	Switzerland	3.91-3.95
Sth African Rand	1.6975-1.6985	0.8965-0.8970	United States	1.88¾-1.90¼
U.A.E. Dirham	6.90-6.96	3.6700-3.6740	Yugoslavia	67-80

† Rate given for Argentina is the commercial rate. The financial rate for sterling is 12,165-12,185 and for the dollar 6,400-6,450. *Selling rate.

EURO-CURRENCY INTEREST RATES (Market closing Rates)

July 3	Sterling	U.S. Dollar	Canadian Dollar	Dutch Guilder	Swiss Franc	West German Mark	French Franc	Italian Lira	Belgian Franc Convertible	Japanese Yen
Short term	11⅛-11⅜	19-19½	19-20	11⅝-11⅞	5¾-6¼	11⅝-11¾	19-23	18-22	13-15	6-6½
7 days' notice	11⅜ 11⅝	19-19½	19-20	11⅝-11¾	6-6½	11¾-11⅞	19 23	24-27½	14-16	6½-6¾
Month	11⅞-12	19⅛-19⅜	19⅛-19¾	11¾-11⅞	9⅛-9⅝	12⅛-12⅛	20-22	25¼-26½	18½-19	6¾-7
Three months	12⅛-12⅜	18⅛-18⅜	19⅛-19½	11⅞-12	9⅛-9⅜	12⅝-12½	20-21½	25¾-26¾	17¾-18¼	7⅛-7⅜
Six months	13¼-13⅜	17¾-18	18⅝-18¾	11⅞-12	9⅞-10	12⅜-12½	19¼-20¼	25¼-26¼	17⅝-17⅞	7¾-8
One Year	13⅜-13⅝	16⅞-17⅛	17⅛-17⅞	11⅞-12	9⅛-9⅜	12⅝-12½	18½-19½	24½-25½	16-16½	8⅛-8⅜

SDR linked deposits: one-month 16⅜-16⅝ per cent; three-months 15⅝-15⅞ per cent; six-months 15⅜-15⅝ per cent; one-year 14⅞-14⅞ per cent.

ECU linked deposits: one-month 15⅞-15⅞ per cent; three-months 15⅝-15⅞ per cent; six-months 15⅜-15⅝ per cent; one-year 14⅞-15⅛ per cent.

Asian $ (closing rates in Singapore): one-month 20-20⅛ per cent; three-months 18⅞-18⅞ per cent; six-months 18-18⅛ per cent; one-year 16⅞-17⅛ per cent. Long-term Eurodollar two-years 16⅝-16⅞ per cent; three-years 16-16½ per cent; four-years 15⅞-16⅛ per cent; five-years 15⅝-15⅞ per cent; nominal closing rates. Short-term rates are call for U.S. dollars, Canadian dollars and Japanese yen; others two-days' notice.

The following nominal rates were quoted for London dollar certificates of deposit: one-month 18.40-18.50 per cent; three-months 17.70-17.80 per cent; six-months 17.05-17.15 per cent; one-year 16.30-16.50 per cent.

FT LONDON INTERBANK FIXING (11.00 a.m. JULY 3)

3 months U.S. dollars		6 months U.S. dollars	
bid 18 5/16	offer 18 7/16	bid 17 7/8	offer 18

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 am each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

LONDON MONEY RATES

July 3 1981	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Auth. negotiable bonds	Finance House Deposits	Company Deposits	Discount Market Deposits	Treasury Bills ✦	Eligible Bank Bills ✦	Fine Trade Bills ✦
Overnight	—	3-11⅞	11¼-11⅝	—	—	8-11⅝	9-11⅝	—	—	—
2 days notice	—	—	11⅛-11⅜	—	—	—	—	—	—	—
7 days or	—	—	—	—	—	—	—	—	—	—
7 days notice	—	11¼-11¾	11⅝-11⅞	—	12	11¼-12	11⅛-11¼	—	—	—
One month	12-11⅞	11⅞-12	12	12⅞-12⅝	12¼	12⅛-12⅝	11⅛	11⅛	11⅝	12¼
Two months	12⅛-12⅛	12⅛-12⅛	—	13-12⅝	12⅛	12⅝	11¾	11⅛	11⅞-11⅜	12½
Three months	12⅛-12⅞	12⅛-12¾	12⅝	13-12⅝	13	12¾-12⅞	12	12⅛	12⅛-12⅛	12¾
Six months	12⅛-12⅞	13-13⅛	12⅞	12⅞-12⅝	13¼	13⅛	—	—	12⅛-12⅛	12⅛
Nine months	13⅛ 13	13⅛ 13⅜	—	13½-13¼	13½	13⅜	—	—	—	—
One year	13⅛-13⅛	13¼-13⅛	13¼	13⅝-13¼	13⅜	13⅜	—	—	—	—
Two years	—	—	13⅝	—	—	—	—	—	—	—

Local authorities and finance houses seven days' notice, others seven days' fixed. Long-term local authority mortgage rates nominally three-years 13¾ per cent; four-years 14 per cent; five-years 14¼ per cent. ✦Bank bill rates in table are buying rates for prime paper. Buying rates for four-month bank bills 12⅞-12¾ per cent; four-months trade bills 12⅞ per cent.

Approximate selling rate for one-month Treasury bills 11⅛ per cent; two-months 11⅞ per cent; three-months 11⅞ per cent. Approximate selling rate for one-month bank bills 11⅝ per cent; two-months 11¾-11⅞ per cent; three-months 12⅛-12⅛ per cent; one-month trade bills 12 per cent; two-months 12¼ per cent and three-months 12½ per cent and three-months 12½ per cent.

Finance Houses Base Rates (published by the Finance Houses Association) 13 per cent from July 1 1981. Clearing Bank Deposit Rates for sums at seven days' notice 9 per cent. Clearing Bank Rates for lending 12 per cent. Treasury Bills: Average tender rates of discount 11.9839 per cent.

CURRENCY RATES

July 2	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	12	Unavail.	0.561375
U.S. $	14	"	1.04430
Canadian $	19.08	"	1.25667
Austria Sch.	6¾	"	17.7844
Belgian F.	13	"	41.5282
Danish K.	11	"	7.91058
D mark	7½	"	2.52199
Guilder	9	"	2.80395
French Fr.	9½	"	5.98750
Lira	19	"	1256.29
Yen	6¼	"	238.257
Norwgn. Kr.	9	"	6.31384
Spanish Pts.	8	"	100.879
Swedish Kr.	12	"	5.35204
Swiss Fr.	5	"	2.16568
Greek Dr'ch.	20½	"	61.5458

FT UNIT TRUST INFORMATION SERVICE

OFFSHORE & OVERSEAS—contd.

Craigmount Fixed Int. Mngrs. (Jersey)
P.O. Box 195, St. Helier, Jersey. 0534 27561
Gilt Fund (Jly.1) 91.3 91.4 ..... 14.77
Valued weekly Wednesday.

DWS Deutsche Ges. F. Wertpapiersp
Grueneburgweg 113, 6000 Frankfurt
Investa DM34.68 36.45 +0.45 —

Delta Group
P.O. Box 3012, Nassau, Bahamas
Delt. Inv. June 23 $4.93 5.07 ..... —
London Agents: Kleinwort Benson. Tel: 01-623 8000

Deutscher Investment-Trust
Postfach 2685 Biebergasse 6-10 6000 Frankfurt
Concentra DM18.05 18.50 +0.18 —
Int. Rentenfonds DM62.75 64.32 −0.32 —

Dreyfus Intercontinental Inv. Fd.
P.O. Box N3712, Nassau, Bahamas.
NAV June 23 US$33.57 35.73 ..... —

Duncan Lawrie Inv. Mgt. (Jersey)
15-17, New St., St. Helier, Jersey 0534 73637
DL Sterling 40.0 42.0 ..... 7.00
DL International $1.33 1.40 ..... 6.10

Emson & Dudley Tst. Mgt. Jrsy. Ltd.
P.O. Box 73, St. Helier, Jersey. 0534 73933
E.D.I.C.T. 159.0 173.5 −0.3 2.20

The English Association
4 Fore Street, EC2. 01-588 7081
E. A. Income Fund* 66.6 70.9 ..... 7.05
E. A. Sterling* £69.31 69.36 ..... —
E. A. Equity* £70.24 74.73 ..... 1.67
Wardgate Cm. Fd.** £17.33 18.03 ..... 2.77
*Next dealing July 8. **Next dealing July 31.

Eurobond Holdings N.V.
Pieternaai 15, Willemstad, Curacao.
London Agents: Intel 15 Christopher St., EC2 Tel. 01-377 1040. Telex 8814408.
Euro Hldgs US$20.24 20.84 ..... 9.20

S.G. Europe Obligations S.A.
9, Avenue de la Liberte, Luxembourg
London Agent: FFS, Salisbury Hse, London Wall EC2M 5TA. Tel. 01-920 0776 Telex 887281
Europe-Obligations US$41.63 +0.01 1.97

F & C Mgmt. Ltd. Inv. Advisers
1, Laurence Pountney Hill, EC4. 01-623 4680
F&C Atlantic Fd. SA US$12.09 ..... 1.22
F. & C. Oriental Fd. US$24.97 ..... 0.40
Prices June 26. Weekly dealings.

Fidelity International Ltd.
P.O. Box 670, Hamilton, Bermuda.
8, Queensway Hse., Queen St., St. Helier, Jersey, C.I. 0534 71696
American Assets US$41.16 −0.11 1.21
Am. Vals. Com.Pf $3 $101.75 ..... 3.00
American Vals. Com.* $26.94
Dollar Savings Trust US$81.07 +0.06 16.92
Far East US$35.22 +0.19 —
International US$44.28 −1.15 —
Pacific US$112.75 ..... 0.23
World US$25.06 −0.18 —
Gilt Fund US$22.2 ..... 13.95
*Prices at June 30.

First Viking Commodity Trusts
10-12 St. George's St., Douglas, IoM. 0624 25015
Fst. Vik. Cm. Tst. 26.6 28.0 ..... 5.80

Fleming Japan Fund S.A.
37, rue Notre-Dame, Luxembourg
Fleming June 30 US$74.67 ..... —

Frankfurt Trust Investment—GmbH
Neue Mainzer Strasse 74-76, D-6000 Frankfurt
FT-Interzins DM37.14 41.25 +0.03 —
Frankft. Effekt. Fd. DM56.96 59.96 +0.20 —

Free World Fund Ltd.
Butterfield Bldg., Hamilton, Bermuda.
NAV April 30 US$151.93 ..... —

G.T. Management Ltd.
Park Hse., 16 Finsbury Circus, London EC2
Tel- 01-628 8131. TLX: 886100
London Agents for:
Anchor 'B' Units US$1.90 2.96 ..... 2.03
Anchor Gilt Edge £8.41 8.46 +0.04 15.01
Anchor Int. Fd. US$9.29 9.53 ..... 1.84
Anchor In. Jsy. Tst 54.3 57.9 +2.0 2.07
Berry Pac Fd US$71.81 ..... 0.70
Berry Pac Strlg £4.458 4.7840 ..... 0.87
G.T. Asia Fd. HK$25.66 +0.52 0.97
G.T. Asia Sterling £36.59 38.08 +1.84 1.09
G.T. Australia Fd. A$37.90 ..... 0.77
G.T. Bond Fund US$11.21 +0.03 10.26
G.T. Dollar Fd. US$13.52 −0.38 1.11
G.T. Dlr. (Strlg.) Fd. £16.40 17.08 −0.09 0.91
G.T. Invest. Fd. US$19.00 −0.17 0.53
G.T. Japan Small Co. US$16.91 ..... —
Marianne (STG) Fd. £8.41 8.83 ..... 7.07
G.T. Technology Fd. US$29.74 ..... —
G.T. Pacific Fd. US$18.57 ..... 0.19
G.T. Asean Growth Fd. US$12.89 13.88 −0.08 0.38

Gartmore Invest. Ltd. Ldn. Agts.
2, St. Mary Axe, London, EC3. 01-283 3531
Gartmore Fund Managers (C.I.) Ltd. (a) (h)
41, Broad St., St. Helier, Jersey. 0534-73741
Gilt Fund (Jersey) 83.0 87.0 ..... 14.00
Gartmore Fund Managers (Far East) Ltd. (a)(h)
1503 Hutchison Hse., 10 Harcourt Rd., H. Kong
Australian Tst. 11.706 .....
HK & Pac. U. Tst. HK$8.865 10.478 +0.38 2.60
Japan Fd. 28.277 ..... 0.50
N. American Tst. 26.806 +0.48 1.00
Intl. Bond Fund US$10.491 11.052 ..... 9.30
Gartmore Fund Managers (IOM) (a)
P.O. Box 32 Douglas, Isle of Man Tel. 0624 23911
Gartmore Intl. Inc. 22.3 23.7 ..... 13.00
Gartmore Intl. Grth. 167.9 178.7 ..... 0.50

Assicurazioni GENERALI S.p.A.
P.O. Box 132 St. Peter Port, Guernsey, C.I.
Sterling Managed Fd. £113.50 +1.0 —
Dollar Mngd. Fnd. US$100.75 +0.25 —

Granville Management Limited
P.O. Box 73, St. Helier, Jersey. 0534 73933
Granville Inv. Tst. £7.45 7.88 ..... 4.78
Next dealing day July 15.

Guinness Mahon Fd. Mgrs. (Guernsey)
PO Box 188, St. Peter Port, Guernsey. 0481 23506.
[illegible]d £20.35 21.03 ..... 11.20
Prices at June 25. Next dealing July 30.

Hambro Pacific Fund Mgmt. Ltd.
2110, Connaught Centre, Hong Kong
Far East July 2 HK$29.15 31.30 ..... —
Japan Fund July 3 US$11.36 12.18 +0.48 —

Hambros Fd. Mgrs. (C.I.) Ltd.
P.O. Box 86, Guernsey. 0481-26521
†Capital Reserve Fd. £13.30 13.31 ..... 0.21
C.I. Fund 207.1 220.6 ..... 3.51
Special Sits. Fund 78.1 82.3 ..... 3.15
Trans. Nat. Trust 50.982 1.034 ..... 2.90
Intnl. Bond US$100.28 106.61 ..... 9.80
Int. Equity US$17.36 18.27 ..... 0.97
Int. Svgs. 'A' $US 1.27 1.34 ..... —
Int. Svgs. 'B' 1.79 1.88 ..... —
Prices on July 1. Next dealing July 8.
†Excludes initial charge on small orders.

Henderson Admin. (Guernsey) Ltd.
7 New St., St. Peter Port, Guernsey 0481 26541/2
American (US cents) 137.8 145.0 ..... —

Henderson Baring Group
801, Gloucester, 11, Pedder, Hong Kong
Japan Fd. *July 2 US$32.17 33.59 −0.29 —
Japan Tech. *June 29 US$20.14 21.00 ..... —
Malay Sngp* June 30 US$24.23 25.85 ..... —
Pacific Fd. *July 2 19.145 19.623 +0.027 —
Bond Fd. *July 2 US$9.721 9.866 −0.86 9.00
PO Box 71, 7 New St., Peter Port, Guernsey, C.I.
Gilt Fd.† £8.92 9.01 ..... 13.00
*Inclusive of Preliminary charge. †Weekly dealings.

Hill-Samuel & Co. (Guernsey) Ltd.
8 LeFebvre St., St. Peter Port, Guernsey, C.I.
Guernsey Tst 206.7 221.1 +0.4 2.97

Hill Samuel Investment Mgmt. Intnl.
P.O. Box 63, Jersey. 0534 27381
HS Channel Is. Fd. 147.8 157.6 ..... 3.25
H.S. Fxd.Int.Fd. 91.0 95.0 ..... 12.70
H.S. Intnl. Gth. Fnd. 117.1 124.8 ..... —
Box 2622, Berne, Switzerland. Telex 33425.
H.S. Overseas Fd. US$24.42 25.40 −0.32 —
CSF Fd. (Acc.) SF18.81 19.20 −0.01 —
Crossbow Fd. SF7.45 7.58 +0.07 —
ITF Fd. (Acc.) US$13.77 14.03 −0.13 —

I.C. Trust Managers Ltd.
10, St. Georges St., Douglas, IoM 0624 25015
Int. Commodities Tst. 102.8 109.4 +2.5 —
Next dealing day August 5.

N.V. Interbeheer
P.O. Box 526, Delft, Holland
Esmeralda(OfferPce) DF72.73 — −0.36 2.47

International Bond Trust
2, Boulevard Royal, Luxembourg
NAV July 3 US$9.71 9.71 +0.01 —

International Pacific Inv. Mgmt. Ltd.
P.O. Box R237, 56, Pitt St., Sydney, Aust.
Javelin Equity Tst. A$4 12 4.24 ..... 4.60

Jardine Fleming & Co. Ltd.
46th Floor, Connaught Centre, Hong Kong
Jardine J'pn. Fd. Y2.753 ..... 0.60
Do. (Accum.) Y2.761 ..... —
J.F. Japan Small Co. Y12.148 ..... —
J.F. Japan Technology Y10.697 ..... —
Jardine Estn. Tst. HK$1,045.82 ..... 1.10
J. F. Pac. Secs. (Inc.) HK$32.23 ..... 0.50
Do. (Accum.) HK$36.64 ..... —
Jardine Flem Int. HK$28.84 ..... 0.30
J. F. S.E.A. US$51.71 ..... 0.90
Do. (Accum) US$52.01 ..... —
J.F. Cur.&Bd.Fd.(Inc.) US$11.73 ..... 6.50
Do. (Accum.) US$13.06 ..... —
Japan & Pacific GwTst US$12.85 ..... 5.0
NAV June 15.
London Agents: Robt. Fleming & Co. Tel: 01-283 2400

Leopold Joseph & Sons (Guernsey)
Hirzel Ct., St. Peter Port, Guernsey. 0481-26648.
L.J. Sterling Fund £13.34 13.39 ..... —
For Kemp-Gee see Scrimgeour Kemp-Gee.
For Keyser Ullman see Central Assets Management.

King & Shaxson Mngrs.
1, Charing Cross, St. Helier, Jersey. (0534) 73741
Valley Hse., St. Peter Port, Grnsy. (0481) 24706
1 Thomas Street, Douglas, I.O.M. (0624) 4856
Gilt Fund (Jersey) 7.37 7.35 ..... 13.75
Gilt Trust (I.o.M.) 85.7 89.8 ..... 13.75
Gilt Fnd. Guernsey 7.69 7.74 ..... 13.75
Intl. Govt. Secs. Tst.
First Sterling £15.19 15.28 ..... —
First Intl. £201.91 203.03 ..... —

Kleinwort Benson Group
20, Fenchurch St., EC3. 01-623 8000
Guernsey Inc. 96.2 105.7 ..... 4.73
Do. Accum. 132.3 145.3 ..... 4.73
*K.B. Eurobond Fd. £9.85 9.96 ..... 10.47
K.B. Far East Fd. US$27.89 ..... 1.52
K.B. Gilt Fund £9.18 9.24 ..... 13.49
K.B. Int. Bd. Fd. Inc. US$83.75 ..... 10.37
K.B. Int. Bd. Fd. Acc. US$106.01 ..... 10.37
K.B. Intl. Fund $17.44 −0.18 2.29
K.B. Japan Fund US$50.45 ..... 0.69
K.B. Sterl. Asset Fd. £12.66 12.68 ..... —
K.B. U.S. Gwth. Fd. US$22.80 ..... 2.30
Signet Bermuda US$7.81 ..... 1.92
Transatlantic Fd. US$74.45 ..... 2.10

Kredietbank N.V. (Belgium)
Arenbergstraat 7, B-1000 Brussels
Eurinvest NAV Flx1080 — +12 —

Lazard Brothers & Co. (Jersey) Ltd.
P.O. Box 108, St. Helier, Jersey, C.I. 0534 37361
Laz. Bros. Int. Cap. US$12.77 13.59 ..... 1.00
Laz. Bros. Int. Inc. 1058.2 1106.24 ..... 15.00

Lloyds Bk. (C.I.) U/T Mgrs.
P.O. Box 195, St. Helier, Jersey. 0534 27561
Lloyds Tst. O'seas 94.3 100.3 ..... 1.17
Next dealing date July 9.
Lloyds Trust Gilt £8.73 8.74 ..... 14.00
Next dealing date July 8.

Lloyds Bank International, Geneva
P.O. Box 438, 1211 Geneve 11 (Switzerland)
Lloyds Int. Growth SF840.50 726.00 ..... 0.60
Lloyds Int. Income SF272.50 283.00 ..... 6.40

M & G Group
Three Quays, Tower Hill EC3R 6BQ. 01-626 4588
Atlantic June 30 US$4.88 7.32 ..... 0.70
Aus. Ex. July 1 US$6.94 7.31 ..... 0.70
Gold Ex. July 1 US$29.83 31.53 ..... 13.87
Gold Ex. Acc. US$39.85 42.40 ..... 13.87
Island 172.0 183.0 +0.1 3.65
(Accum Units) 268.4 285.5 +0.2 3.63

Management International Ltd.
Bk. of Bermuda Bldg., Bermuda. 809-295-4000
Bda. Intl. Bd. Fd. Cap. US$11.98 ..... —
Bda. Intl. Bd. Fd. Inc. US$10.47 ..... 12.00
Prices June 26. Next dealing July 6.

Midland Bank Tst. Corp. (Jersey) Ltd.
28-34, Hill St., St. Helier, Jersey. 0534 36281
Mid. Drayton Gilt 88.9 89.4 ..... 13.42
Mid. Drayton Int. Bond US$1.00 1.01 ..... 9.90

Samuel Montagu Ldn. Agents
114, Old Broad St., EC2. 01-588 6464
Apollo Fd. July 1 SF79.20 85.95 +3.35 1.62
Japfest Jun 30 HK$27.56 29.83 ..... 0.32
117 Group June 1 US$16.21 17.43 ..... 1.20
Jersey June 24 £9.02 9.81 ..... 0.43
J'sey O's June 17 £6.05 6.37 ..... 3.30
Stlg. Res. June 30 £10.78 10.71 ..... —

Murray, Johnstone (Inv. Adviser)
163, Hope St., Glasgow, C2. 041-221 5521
Hope St. June 30 US$49.57 ..... —
Murray Fd. June 30 US$21.81 ..... —
Pacific Fd. May 31 US$6.20 ..... —

Nat. Westminster Jersey Fd. Mgrs. Ltd.
45 La Motte St., St. Helier, Jersey 0534 36241
High Income Fund 42.7 44.0 ..... 13.64
Equity Fund 64.4 67.0 ..... 2.96
International Bond* 50.5 52.0 ..... 9.86
*Sub. day every Thurs.

Negit S.A.
10a Boulevard Royal, Luxembourg
NAV June 5 US$8.64 — ..... —

N.E.L. International Ltd.
P.O. Box 119, St. Peter Port, Guernsey, C.I.
Sterling Deposit 54.5 57.4 ..... —
Sterling Fixed Interest 52.5 55.2 ..... —
Sterling Managed 52.7 57.3 ..... —
Intl. Fixed Interest 62.2 67.8 ..... —
Intnl. Managed 58.5 63.6 ..... —

Pacific Basin Fund
10a Boulevard Royal, Luxembourg.
NAV US$24.70 ..... —
Inv. Adv.: M. & G. Inv. Mngt., Ltd., London.

Phoenix International
PO Box 77, St. Peter Port, Guern. 0481 26741
Inter-Dollar Fund US$3.13 3.38 ..... —
Far East Fund US$2.91 3.14 ..... —
Intl. Currency Fund US$1.71 1.85 ..... —
Dollar Fxd. Int. Fund 2.43 2.62 ..... —
Ster. Exempt Gilt Fd. £1.39 1.51 ..... —

Providence Capitol Life Ass. (C.I.)
PO Box 121, St Peter Port, Guernsey 0481 26726/9
Sterling Bond Fd. 47.3 49.7 ..... —
Sterling Equity Fd. 72.9 76.6 ..... —
Intnl. Bond Fd. US$1.02 1.07 ..... —
Intnl. Equity Fd. US$1.35 1.42 ..... —
Prices at June 24. Next dealing July 1.

Quest Fund Mngmnt. (Jersey) Ltd.
PO Box 194, St. Helier, Jersey. 0534 27441
Quest Stlg.Fxd.Int. £0.739 0.783 ..... 12.77(g)
Quest Intl. Secs. $1.187 1.277 ..... 1.25
Quest Intl. Bd. US$0.854 0.904 ..... 11.06
Prices on July 1. Next dealing July 8.

Quilter/Heinold Commodities
31-45, Gresham Street, EC2V 7LH. 01-600 4177
Resource Fund Intl. June 1. NAV US$1269.65
Next dealing date Aug. 3

RBC Investment Managers Limited
PO Box 48, St. Peter Port, Guernsey. 0481-23021.
Intl Income Fd. US$9.09 9.69 ..... —
Intl. Capital Fd. US$10.34 11.13 −0.23 —
North America Fd. US$4.85 5.34 ..... —

Raminco Managers Ltd.
P.O. Bx. 1549, Hmltn, Bermuda. (809-29) 2-7979
RAMINCO June 1 58.71 8 98 ..... —

Richmond Life Ass. Ltd.
4 Hill Street, Douglas, I O.M. 0624 23914
(x)The Silver Trust 175.2 179.4 −1.0 —
Do. Diamond Bd. 126.8 133.4 +2.5 —
Sterling Deposit Bd. 132.45 139.42 ..... 11.40
Atlas Gilt & Com. Fd. 101.0 106.4 ..... —
UK Gilt Fund 110.0 115.8 +0.6 —
Sapphire Trust 126.8 133.4 ..... —
Petroman Oil Trust 119.1 125.3 ..... —

Rothschild Asset Management (C.I.)
P.O. Box 58, St. Julians Ct., Guernsey 0481 26331
O.C. America Fd.† US$2.85 3.03 ..... 0.56
OCSm. Co.*** 126.4 134.4 ..... 2.46
O.C. Commodity* 96.3 102.4 ..... 7.03
O.C. Dir.Comdty.† US$43.54 46.31 ..... 2.07
O.C. Hong Kg. Fd.†† HK$43.59 46.20 ..... —
O.C. Sterling Fd.** £13.837 — −0.002 —
*O.C. International Reserves Limited
Bel.Francs(Fin.) 670 970
Canadian $ 28.125
D-Mark 43.380
Dutch Guilder 43.255
French Francs 111.210
Italian Lira 23.952
Singapore $ 54.730
£ Sterling 11.306
Swiss Francs 41.942
U.S.$ 22.325
*Prices on June 12. Next dealing June 30.
†Prices on June 22. Next dealing July 7.
**Daily dealings. ***June 30. ††Dealing Every Wednesday.

Save & Prosper International
Dealing to
P.O. Box 73, St. Helier, Jersey 0534 73933
Fixed Interest Funds
Deutschmark Bd.**‡ DM8.72 9.25 ..... 5.95
Dlr. Fxd. Int.**‡ US$7.48 7.96 ..... 9.42
St. Fixed***‡ 99.2 105.0 ..... 13.33
Yen Bond** Y1356 1428 ..... 3.50
Equity Funds
Channel Capital✻ 97.0 102.2 +0.4 1.90
Internatl. Gr.*‡ US$12.79 13.83 ..... —
Far Eastern*‡ US$20.85 22.55 ..... —
North American*‡ US$7.40 8.00 ..... —
Sepro**‡ US$20.25 21.90 ..... —
Trust Channel Isl.✻ 82.8 87.2 +0.1 5.20
Commodity Funds
Commodity****‡ 112.5 118.8 +1.3 —
Deposit Funds
St. Deposit****✻ 140.2 140.3 +0.3 0.18
Prices on *June 29 **July 1 ***July 3.
****July 2. Weekly dealings. ‡Daily dealings.

Schroder Life Group
Enterprise House, Portsmouth. 0705 27733
International Funds
£Equity 140.1 149.0 ..... —
$Equity US$2.565 2.728 ..... —
£Fixed Interest 179.0 190.4 ..... —
$Fixed Interest US$1.304 1.387 ..... —
£Managed 165.0 175.5 ..... —
$Managed US$1.960 2.085 ..... —

Schroder Mngt. Services (Jersey) Ltd.
P.O. Box 195, St. Helier, Jersey. 0534 27561
Sterling Money Fd. £11.0355 11.0357 ..... —
Next subscription day July 1.

J. Henry Schroder Wagg & Co. Ltd.
120, Cheapside, EC2. 01-588 4000.
Am. Inv. Tst. June 24 US$19.42 ..... 1.80
Asian Fd. June 22 US$31.09 32.57 ..... 2.07
Cheapside July 2 US$19.00 −0.20 2.10
Darling Fd. July 2 A$3.66 3.92 ..... 4.30
Japan Fund June 25 US$11.33 12.18 ..... 0.74
Trafalgar Fd. May 31 US$281.03 ..... —

Scrimgeour Kemp-Gee Mngmt., Jersey
1, Charing Cross St. Helier, Jersey. 0534 73741
SKG Capital Fund 155.2 160.0 ..... —
SKG Income Fund 53.2 54.9 ..... 8.54
Gilt Bond £10.65 11.22 −9 —

Sentry Assurance International Ltd.
P.O. Box 1776, Hamilton 5, Bermuda.
Managed Fund US$5.008 5.5009 ..... —

Singer & Friedlander Ldn. Agents.
20, Cannon St., EC4. 01-248 9646
Dekafonds DM23.56 24.80 +0.18 6.45
Tokyo Trust June 30 US$49.40 ..... 1.92

Strategic Metal Trust Mngrs. Ltd.
3 Hill Street, Douglas, IOM 0624 23914
Strategic Metal Tr. US$0.975 1.000 ..... —

Stronghold Management Limited
P.O. Box 315, St. Helier, Jersey. 0534-71460
Commodity Trust 152.57 160.60 ..... —

Surinvest (Jersey) Ltd. (x)
Queens Hse., Don Rd., St. Helier, Jsy. 0534 27349
American Ind.Tst. £6.22 6.35 −0.08 —
Copper Trust £12.59 12.90 −0.01 —
Jap. Index Tst. £8.35 8.50 −0.04 —

Surinvest Trust Managers Ltd.
4, Hill Street, Douglas, Isle of Man 0624 23914
The Coin Trust 116.8 123.0 ..... —

TSB Trust Funds (C.I.)
10 Wharf St., St. Helier, Jersey (CI). 0534 73494
TSB Gilt Fund Ltd. 85.0 88.0xd 14.77
TSBGiltFd.(Jsy.)Ltd. 85.0 88.0xd 14.77
TSB Jersey Fund 59.8 62.9 ..... 4.57
TSB Guernsey Fund 59.8 62.9 ..... 4.57
Prices on June 24. Next sub. day July 1.

Tokyo Pacific Holdings N.V.
Intimis Management Co. N.V., Curacao.
NAV per share June 29 US$92.13.

Tokyo Pacific Hldgs. (Seaboard) N.V.
Intimis Management Co. N.V., Curacao.
NAV per share June 29 US$67.20.

Tyndall Group
2 New St., St. Helier, Jersey. 0534 37331/3
TOFSL July 2 £13.70 14.70 ..... 1.78
(Accum. shares) £23.50 25.15 ..... —
American July 2 147.8 157.4 ..... 2.06
(Accum. shares) 162.2 172.8 ..... —
Far Eastern July 2 191.4 205.0 ..... 0.78
(Accum. shares) 202.8 217.2 ..... —
Jersey Fund July 1 123.8 132.6 ..... 8.79
(Non-J. Acc. Uts.) 229.8 246.0 ..... —
Gilt Fund July 1 94.6 96.4 ..... 12.46
(Accum. Shares) 174.0 177.2 ..... —
30, Athol St., Douglas, Isle of Man. 0624 24111
High Inc. Gilt July 1 97.0 99.0 ..... 15.36
(Accum Shares) 116.6 119.0 ..... —

Unico Invest. Fd. Mngt. Co., S.A. Lux.
London & Continental Bankers Ltd.
2, Throgmorton Ave., London. 01-638 6111
Unico Invest. Fund DM60.47 62.30 −0.40 —

Unilife Assurance (Overseas) Ltd.
P.O. Box 1388, Hamilton 5-31, Bermuda
Interml. Mngd. Fd. US$1.05 ..... —

Union-Investment-Gesellschaft mbH
Postfach 16767, D 6000 Frankfort 16.
Unifonds DM17.17 18.00 +0.30 —
Unirak DM47.98 50.40 +0.05 —
Unirenta DM35.01 36.10 +0.10 —

Vanbrugh Fund Mngmt. Intl. Ltd.
28.34 Hill St., St. Helier, Jersey 0534 36281
Vanbrugh Currency Fd. 101.8 101.9 ..... 7.54

van Cutsem & Associates Ltd.
42, Essex Street, London, WC2 01-353 6845
PanAmer. O's. Fd. US$9.16 ..... —

S. G. Warburg & Co. Ltd.
30, Gresham Street, EC2. 01-600 4555
Energy Intl. July 2 US$36.22 — −0.20 —
Merc. Eurbd. July 1 12.01 12.14 ..... 6.57
Merc. Mny. June 29 14.14 14.15 ..... —
Select Rk. June 16 14.69 15.22 ..... —

Warburg Invest. Mngt. Jrsy. Ltd.
7 Library Place, St. Helier, Jsy. CI 0534 37217
Merc. Cmn. June 25 £13.70 14.05 ..... 2.78
Metal Tst. July 2 £11.64 11.93 −0.23 —
SMI Ltd. July 2 £15.72 16.12 +0.45 2.28
Merc. Tran. June 26 £15.97 16.37 ..... 3.12

Wardley Investment Services Ltd.
4th Floor, Hutchison House, Hong Kong
Wardley Trust HK$29.47 31.20 ..... 2.56
Wardley Nikko As. Fd. US$55.14 57.34 ..... 1.59
Wardley Bond Trust US$9.10 9.30 ..... 9.46
Wardley Japan Trust US$19.74 20.32 ..... 1.23

World Wide Growth Management
10a, Boulevard Royal, Luxembourg
Worldwide Gth Fd US$32.31 ..... —
Inv. Adv.: M. & G. Inv. Mngt., Ltd., London.

Wren Commodity Management Ltd.
10, St. George's St., Douglas IoM 0624 25015
Wren Commod. Tst. 46.3 46.7 ..... —
Chinese Fund 98.9 99.8 −1.8 —
Precious Metal Fund 134.3 135.8 +22.8 —
Vanguard Cmdy. Fd. 48.8 49.9 −0.4 —

NOTES

Prices are in pence unless otherwise indicated. Yields % (shown in last column) allow for all buying expenses. a Offered prices include all expenses. b Today's prices. c Yield based on offer price. d Estimated. g Today's opening price. h Distribution free of UK taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. Z Previous day's price. ¥ Net of tax on realised capital gains unless indicated by ✦. ¶ Guernsey gross. # Suspended. ✦ Yield before Jersey tax. † Ex-subdivision. ‡‡ Only available to charitable bodies.

هكذا من الأصل

AUTHORISED UNIT TRUSTS

FT UNIT TRUST INFORMATION SERVICE

Abbey Unit Tst. Mngrs. (a)
[illegible]-80, Gatehouse Rd., Aylesbury 0296 5941.
[illegible]

Allen Harvey & Ross Unit Tst. Mngrs.
1, Cornhill, London EC3V 3PB. 01-623 6314.
AHR Gilt Trust ...|88.1 88.3|+0.2| 12.94

Allied Hambro Ltd. (a) (g)
Hambro Hse., Hutton, Brentwood, Essex. 01-588 2851 or Brentwood (0277) 211459
[illegible]

Anderson Unit Trust Managers Ltd.
58, Fenchurch St., EC3M 6AA. 623 9231
Anderson U.T. ...|71.9 77.4| ...| 3.20

Ansbacher Unit Mgmt. Co. Ltd.
1, Noble St., EC2V 7JA. 01-726 4931.
Inc. Monthly Fund ...|166.0 176.0| ...| 9.41
Intl. & Gen. Fd ...|54.0 57.0| ...| 6.82

Anthony Wieler Unit Tst. Mgmt. Ltd.
9, Widegate St., London, E1 7HP. 01-247 8827
Wieler Gwth. Fd. Inc. |44.00 46.30| ...| 3.11
Do. Accum. |56.00 58.90| ...| 3.11

Arbuthnot Securities Ltd. (a)(c)
37, Queen St., London, EC4R 1BY. 01-236 5281
[illegible]
Dealings: †Tues. *Wed. ††Thurs. ***Friday.

Archway Unit Tst. Mgs. Ltd.♥ (a)(c)
317, High Holborn, WC1V 7NL. 01-831 6233
Archway Fund ...|127.8 137.4xd| ...| 4.93
Prices July 2. Next sub. day July 9.

Barclays Unicorn Ltd.♥ (a)(c)(g)
Unicorn Ho. 252, Romford Rd., E7. 01-534 5544
[illegible]

Baring Brothers & Co., Ltd.♥ (a)(x)
8, Leadenhall St., EC3. 01-588 2830
Stratton Trust ...|273.2 284.6| ...| 3.96
Do. Accum. ...|[illegible] 365.4| ...| 3.96
Next sub. day July 7.

Bishopsgate Progressive Mgmt. Co.♥
9, Stock Exchange, London, EC2N 1HJ. 01-588 6280
[illegible]
Next sub. day July 14. **July 6.

Bridge Fund Managers (a)(c)
Regis Hse., King William St., EC4. 01-623 4951
[illegible]
Dealing *Tuesday. ‡Wednesday. ‡Prices June 30/1/2.

Britannia Gp. of Unit Trusts Ltd.(a)(c)(g)
Salisbury Hse., 4th Flr., Finsbury Circus, London EC2M 5QL. 01-638 0478/0479
[illegible]

The British Life Office Ltd.♥ (a)
Reliance Hse., Tunbridge Wells, Kt. 0892 22271
British Life ...|70.1 74.9|+0.1| 5.36
Balanced* ...|62.6 66.9| ...| 5.77
Dividend* ...|97.3 99.9| ...| 9.27
Prices July 1. Next dealing July 8.

Brown Shipley & Co. Ltd.♥(a)(g)
Harlands Hse., Haywards H'th, Sx. 0444-58144
[illegible]

Buckmaster Management Co. Ltd.
The Stock Exchange, EC2P 2JT. 01-588 2868
[illegible]

Canada Life Unit Tst. Mngrs. Ltd.♥
2-6 High St., Potters Bar, Herts. P. Bar 51122
Can. Gen Dist. ...|51.4 54.1| ...| 4.34
Do. Gen. Accum. ...|69.9 73.5| ...| 4.34
Do. Income Dist. ...|35.1 36.9| ...| 8.71
Do. Inc. Accum. ...|55.2 58.1| ...| 8.71

Capel (James) Mngt. Ltd.
100 Old Broad St., EC2N 1BQ. 01-588 6010
Capital ...|122.9 130.8| ...| 2.48
Income ...|86.8 92.3| ...| 7.76
North American ...|123.2 131.1| ...| 2.01
Prices on July 1. Next dealing July 15.

Carr, Sebag Unit Trust Managers(a)
3, Princess St., Manchester 061-236 5685
CS Sebag Cap. Fd. ...|51.1 54.4|-0.4| 1.42
CS Sebag Inc. Fd. ...|32.6 34.7|-0.1| 8.51

Charities Charities N/R Fund‡‡
Moorgate, London, EC2. 01-638 4121
Income June 30 ...| 115.18| ...| 12.50
Accum. June 30 ...| 207.39| ...| 12.50

Charities Official Invest. Fund‡‡
77 London Wall, EC2N 1DB. 01-588 1815
Income May 31 ...| 160.34| ...| 7.48
Accum. May 31 ...| 391.19| ...| ...

Chieftain Trust Managers Ltd.♥ (a)(g)
11 New St., EC2M 4TP. 01-283 2632
[illegible]

Chorlton Fund Managers(g)
3, Princess St., Manchester. 061-236 5685
[illegible]

Confederation Funds Mgt. Ltd. (a)
50 Chancery Lane, WC2A 1HE. 01-242 0282
Growth Fund ...|76.2 80.2| ...| 3.76
Cosmopolitan see Dunbarton Fund Managers.

Craigmount Unit Tst. Mgrs. Ltd.
Bucklersbury, London EC4N 8BD. 01-248 4984
High Income ...|36.8 40.2|-0.2| 11.31
North American ...|72.5 78.3|-1.6| 2.17
Canadian Exempt* ...|80.1 84.7| ...| 2.72
Canadian Trust ...|73.7 79.6|-1.8| 2.72
Mid Mount High Inc.* ...|49.7 52.0| ...| 5.16
Recovery ...|60.9 62.9|+0.1| 6.47
Gilt Trust ...|40.2 42.5|+0.1| 13.64
*Weekly dealing day Wednesday.

Crescent Unit Tst. Mngrs. Ltd. (a)(g)
4 Melville Cres., Edinburgh 3 031-226 4931
Cres. Amer. Fd. ...|48.3 52.0|-0.9| 0.48
Cres. Internat'l ...|96.7 104.4|-1.1| 1.44
Cres. High. Dist. ...|46.0 49.7|+0.3| 9.05
Cres. Reserves ...|54.2 58.9|+0.2| 2.19
Cres. Tokyo ...|43.7 47.1|+0.1| 0.27

Darlington Unit Trust Mngt. Ltd.
Bridge Chambers, Barnstaple, Devon 0271 76324
Total Perf. Unit Tst. |23.7 25.1| ...| 8.31

Discretionary Unit Fund Managers
36/38 New Broad St, EC2M 1NU. 01-638 4485
Disc. Inc. June 26 ...|256.9 274.8| ...| 4.84

E. F. Winchester Fund Mngt. Ltd.
44, Bloomsbury Square, WC1A 2RA 01-623 8893
Great Winchester ...|19.9 22.0| ...| 7.48
Gt. Winchester O'seas |30.5 33.8| ...| 2.98
For Emson and Dudley see Robert Fraser Tst. Mgmt.

Equity & Law Un. Tr. M.♥ (a)(b)(c)
Amersham Rd., High Wycombe. 0494 33377
Equity & Law ...|97.3 102.4|-0.1| 4.26

Fidelity International Management Ltd.
62-63 Queen St, London EC4 1AD 01-248 4891
American (z) ...|43.8 47.1|-0.7| 0.43
Amer. Spec. Sits. (z) ...|32.5 35.0|-0.4| 0.10
Gilt + Fixed Int. ...|23.4 24.6| ...| 12.59
Growth + Income ...|34.7 37.4xd| ...| 6.91
Maximum Inc. Eq. Tst. |30.3 32.6| ...| 8.05
Special Sits. ...|44.0 47.4| ...| 1.58

James Finlay Unit Trust Mngt. Ltd.
10-14, West Nile Street, Glasgow. 041-204 1321
J. Finlay Internat'l ...|44.6 47.9| ...| 1.32
Accum. Units ...|55.5 59.7| ...| 1.32
J. Finlay High Income |37.8 40.7| ...| 9.75
Finlay Wld. Energy ...|45.7 48.9|+0.9| 1.07
Accum. Units ...|52.5 56.4|+1.2| 1.07
J. Finlay Fd. In.Tst. ...|42.0 45.2| ...| 4.00
Accum. Units ...|54.4 58.5| ...| 4.00
Prices on July 1. Next dealing July 8.

Framlington Unit Mgt. Ltd. (a)
64, London Wall, EC2M 5NQ. 01-628 5181
Amer. & Gen. ...|99.8 106.6|-1.6| 0.75
Am. T'around ...|91.8 98.0xd|-1.6| 1.35
(Accum. Units) ...|91.8 98.0|-1.6| 1.35
Capital Tst. ...|68.4 73.0|+0.2| 4.19
(Accum. Units) ...|72.2 77.2|+0.2| 4.19
Convertible & Gilt ...|47.4 49.0xd|+0.2| 10.20
(Accum. Units) ...|48.4 50.8|+0.2| 10.20
Extra Income Trust ...|54.6 58.4|+0.2| 8.89
Income Tst. ...|44.6 47.4xd| ...| 8.89
Int. Growth Fd. ...|77.6 82.8|-1.0| 1.08
(Accum. Units) ...|83.4 89.2|-1.2| 1.08

Robert Fraser Trust Mgt. Ltd.
28b Albemarle St., W.1. 01-493 3211
Robt. Fraser Ut. Tst. |84.1 90.5|-1.6| 6.00

Friends' Provdt. Trust Mgrs. (a) (b) (c).
Pixham End, Dorking. 0306 5055
Friends Prov. Units ...|69.6 74.4|+0.2| 4.60
Do. Accum. ...|101.6 108.6|+0.3| 4.60

Funds in Court*
Public Trustee, Kingsway, WC2. 01-405 4300
Capital July 2 ...|154.1 159.1|+3.4| 4.40
Gross Inc. July 2 ...|80.5 82.9| ...| 11.76
High Yield July 2 ...|97.2 100.7|-3.0| 10.33
*Unauth. Restricted to monies under Court control.

G.T. Unit Managers Ltd.♥
16, Finsbury Circus, EC2M 7DJ. 01-628 8131
G.T. Cap. Income ...|161.2 173.9|+1.6| 2.50
Do. Acc. ...|207.2 222.7|+2.0| 2.50
G.T. Inc. Fd. Un. ...|220.6 237.1|+0.1| 7.90
G.T. U.S. & Gen. ...|243.2 261.5|-2.9| 1.40
GT Wld. Bd. Fd. ...|101.4 105.7|+1.4| 7.20
G.T. Japan & Gen. ...|135.8 146.0|+2.5| 1.00
‡G.T. Pens. Ex. Fd. ...|394.1 404.8|+7.0| 1.30
G.T. Int'l. Fund ...|294.4 316.5|+4.9| 1.70
G.T. Four Yds. Fd. ...|57.1 61.4|+0.1| 6.20
G.T. Far East & Gen. |124.2 133.5|+1.8| 1.20
G.T. Tech. & Gth. Fd. |96.6 103.8|-1.2| 0.50

G. & A. Trust (a) (g)
5 Rayleigh Road, Brentwood (0277) 227300
G. & A. ...|46.4 49.6|-0.1| 4.70

Gartmore Fund Managers♥ (a)(g)
2 St. Mary Axe, EC3A 8BP 01-623 6114
Dealing only: 01-623 5766/5806
[illegible]

Gibbs (Antony) Unit Tst. Mgs. Ltd. (a)
3 Frederick's Pl., Old Jewry, EC2 01-588 4111
[illegible]

Govett (John)
77 London Wall, EC2 01-588 5620
Stockholder July 3 ...|188.7 200.8|+8.3| 1.90
Do. Accum. Unit ...|240.0 256.7|+10.7| 1.90
St. European ...|62.1 66.2|+0.7| 2.85
Next dealing June 19.

Grieveson Management Co. Ltd.
59 Gresham St., EC2P 2DS 01-606 4433
[illegible]

Guardian Royal Ex. Unit Mgrs. Ltd.
Royal Exchange, EC3P 3DN 01-628 8011
(ag) Guardhill Tst. ...|140.1 145.2|+0.3| 4.09

Henderson Administration (a) (b) (c)
Premier UT Admin., 5, Rayleigh Road, Hutton, Brentwood, Essex. 0277 217238
[illegible]

Hill Samuel Unit Tst. Mgrs.† (a)
45 Beech St., EC2P 2LX 01-628 8011
(b) British Trust ...|206.7 221.1|+0.4| 4.24
(b) Capital Trust ...|40.7 43.6|+0.1| 3.62
(g) Dollar Trust ...|100.5 107.5|-1.0| 2.40
(b) Far East ...|43.4 46.5|+0.1| 0.92
(b) Financial Trust ...|155.5 164.4|+1.3| 3.05
(b) Gilt & Fxd. Int. Tst. |22.2 23.1|+0.1| 12.40
(b) Gilt F.I. Growth ...|24.0 25.0|+0.2| 4.00
(b) High Yield Tst. ...|27.6 29.6| ...| 8.71
(b) Income Trust ...|29.5 31.5| ...| 7.59
(g) Int'l Trust ...|48.2 51.7|-0.2| 1.91
(b) Security Trust ...|65.5 70.1| ...| 4.95
(b) Spec. Sits. Tst. ...|40.8 43.1| ...| 2.07
Gen. Exempt. June 15 |175.0 186.0| ...| 4.46

Investment Intelligence Ltd. (a)
15, Christopher Street, E.C.2. 01-377 9838
Intel. Amer. Tech. Fd. |84.2 89.7|-1.6| 0.80
Intel. Inc. & Growth |31.2 33.5| ...| 6.90
Intel Pacific Fund ...|131.8 140.3|+0.4| 1.00
Intel Small Co's Fd. |111.1 118.4|-8.8| 3.00

Key Fund Managers Ltd. (a)(g)
1, Paternoster Row, EC4 7DH 01-248 3999
Key Energy In.Fd. ...|154.2 164.0xd|-0.6| 2.65
Key Equity & Gen. ...|92.4 98.2|+0.2| 4.18
♦Key Exempt Fd. ...|268.0 280.0| ...| 5.10
Key Income Fund ...|72.4 77.0xd|+0.2| 9.27
Key Fixed Int. Fd. ...|50.6 52.8| ...| 14.06
Key Small Co's Fd. ...|179.0 190.0|+0.6| 4.02

Kleinwort Benson Unit Managers♥
20, Fenchurch St., EC3 01-623 8000
K.B. Unit Fd. Inc. ...|120.7 130.8|+1.5| 5.58
K.B. Unit Fd. Ac. ...|170.8 185.0|+2.1| 5.58
K.B. Fd. Inv. Tsts. ...|87.5 95.2| ...| 3.86
K.B. Fd. In. Tst. Acc. ...|96.7 105.2| ...| 3.86
KB Smlr Co's Fd Inc. |66.7 73.2|+0.4| 4.67
KB Sm. Cos. Fd. Acc. |75.6 83.0|+0.4| 4.67
KB High Yld. Fd. Inc. |54.9 58.8xd| ...| 8.54
KB High Yld. Acc. ...|66.3 72.1| ...| 8.54

L & C Unit Trust Management Ltd.♥
The Stock Exchange, EC2N 1HP. 01-588 2800
L&C Inc. Fund ...|173.4 178.8| ...| 7.86
L&C Intl & Gen Fd. ...|164.3 169.4| ...| 0.25

Legal & General (Unit Tst. Mngrs.) Ltd.♥
5 Rayleigh Rd., Brentwood 0277 217238
Equity Dis. ...|100.0 108.1|+0.5| 3.59
Equity Acc. ...|138.1 149.3|+0.6| 3.59
Gilt ...|99.8 105.1|+0.1| 9.13

Leonine Administration Ltd.
2, St. Mary Axe, EC3A 8BP. 01-623 6114.
Leo Distribution ...|143.5 152.2| ...| 1.09
Leo Accum. ...|169.9 180.2| ...| 1.09

Lloyds Bk. Unit Tst. Mngrs. Ltd.♥ (a)
Registrar's Dept., Goring-by-Sea, Worthing, West Sussex. 01-623 1288
[illegible]
Exempt♦ June 2 ...|117.5 123.0| ...| 7.09
‡Unauthorised. For tax exempt funds only.

Lloyd's Life Unit Tst. Mngrs. Ltd.
2, St. Mary Axe, EC3A 8BP. 01-623 6114
Equity Accum. (2) ...|272.0 286.3xd| ...| 3.81

Local Authorities' Mutual Invest. Tst.*
77, London Wall, EC2N 1DB. 01-588 1815
Pro. Fund May 31 ...| 150.70| ...| 6.76
Wider Fund May 31 ...| 274.60| ...| 4.92
Narrower Fd. May 31 ...| 75.50| ...| 13.50
*Unauthorised. Available only to Local Authorities.

M & G Group (y)(c)(z)
Three Quays, Tower Hill, EC3R 6BQ. 01-626 4588
[illegible]
Specialised Funds
Trustee ...|180.6 193.2|+0.1| 6.48
(Accum. Units) ...|413.3 442.2|+0.2| 6.48
Charibond June 30 ...| 94.0| ...| 13.88
Charifund June 30 ...|169.2 171.8| ...| 8.41
Pension Ex. June 29 ...|184.4 194.5| ...| 6.07

ManuLife Management Ltd.
St. George's Way, Stevenage. 0438 56101
Gilt & Fxd Int. ...|49.0 50.0| ...| 5.58
Growth Units ...|86.4 90.9|+1.0| 4.37

Mayflower Management Co. Ltd.
14-18, Gresham St., EC2V 7AU. 01-606 8099
Income June 22 ...|117.3 123.4| ...| 8.27
General June 22 ...|76.0 80.0| ...| 4.75
Intnl. June 22 ...|64.4 67.7| ...| 2.58

McAnally Fund Management Ltd.
Regis Hse., King William St., EC4. 01-623 4951
Delphi Inc. Tst. Acc. |35.6 39.5| ...| 8.55
Delphi Inc. Tst. Inc. |25.6 28.4xd| ...| 8.55

Mercury Fund Managers Ltd.
30, Gresham St., EC2P 2EB. 01-600 4555
Gen. Dist. July 1 ...|84.8 90.2| ...| 3.79
Gen. Acc. July 1 ...|122.5 130.3| ...| 3.79
Inc. Fund Rec. July 3 |50.8 54.0|-0.2| 7.65
Int. Dist. July 1 ...|108.4 115.3xd| ...| 2.36
Int. Acc. July 1 ...|125.8 133.8| ...| 2.36
Ext. Dist. July 1 ...|91.4 95.2| ...| 3.67
Ext. Acc. July 1 ...|122.7 127.8| ...| 3.67
Gilt Fund July 3 ...|50.6 51.3|+0.3| ...

Midland Bank Group Unit Trust Managers Ltd.♥ (a)
Courtwood House, Silver Street, Head, Sheffield, S1 3RD. Tel: 0742 79842
[illegible]
*Prices at July 3. Next dealing July 10.

Minster Fund Managers Ltd.
Minster Hse., Arthur St., EC4R 9BH 01-623 1050
Minster June 29 ...|46.8 48.8| ...| 7.75
Exempt June 30 ...|118.7 122.7| ...| 8.01

MLA Unit Trust Mngmnt. Ltd.
Old Queen Street, SW1A 9JG. 01-222 8177
MLA Units ...|94.0 98.6| ...| 3.84

Murray Johnstone U.T. Mgmt.♥ (a)
163, Hope Street, Glasgow, G2 2UH. 041-221 5521
Murray European ...|66.7 71.3| ...| 1.39
Murray Smlr. Cos. Fd. |80.4 88.5| ...| 1.86
Dealing Day Friday.

Mutual Unit Trust Managers♥ (a)(g)
Broad St. Ave., Blomfield St., EC2. 01-638 3911-2.
Mutual Sec. Plus ...|55.5 59.5|-0.5| 8.36
Mutual Inc. Tst. ...|79.0 84.3|+0.2| 8.26
Mutual Blue Chip ...|51.7 55.7| ...| 7.15
Mutual High Yld. ...|56.5 60.5|+0.1| 10.16

National Provident Inv. Mngrs. Ltd.♥
48, Gracechurch St., EC3P 3HH. 01-623 4200
N.P.I. Gth. Un. Tst. ...|66.1 70.4xd| ...| 5.15
(Accum. Units)* ...|91.8 97.7| ...| 5.15
NPI O'seas Trust** ...|222.3 236.4| ...| 1.85
(Accum. Units)** ...|222.6 236.5| ...| 1.85
*Prices on July 1. Next dealing July 15.
**Prices on June 25. Next dealing July 30.

National Westminster♥ (a)
161, Cheapside, EC2V 6EU. 01-606 6060
Capital (Accum.) ...|122.7 131.9|-0.5| 2.56
Extra Inc. ...|60.0 64.5|+0.2| 8.77
Financial ...|55.5 59.6xd|-0.9| 3.21
Growth Inv. ...|115.6 124.3xd|-2.5| 3.78
Income ...|46.5 50.0|-0.2| 5.70
Portfolio Inv. Fd. ...|83.7 87.6xd|+0.1| 5.20
Recovery Trust ...|46.5 50.0| ...| 5.86
Smaller Companies ...|63.5 68.0|+0.2| 3.63
Universal Fd. ...|66.5 71.5|-1.2| 1.56

NEL Trust Managers Ltd.♥ (a)(g)
Milton Court, Dorking, Surrey. 5911
Nelstar ...|80.6 84.8|-0.3| 4.95
Nelstar High Inc. ...|39.9 41.9|-0.1| 8.73
Nelstar International |65.3 68.7|-0.3| 3.03

Northgate Unit Trust Managers Ltd. (c)(y)
20, Moorgate, EC2R 6AQ 01-606 4477
Northgate June 25 ...|116.6 124.1| ...| 4.65
(Accum. Units) ...|124.2 132.2| ...| 4.65

Norwich Union Insurance Group (b)
P.O. Box 4, Norwich, NR1 3NG. 0603 22200
Group Tst. Fund ...|495.4 521.5|+0.5| 4.73

Pearl Trust Managers Ltd. (a)(g)(z)
252, High Holborn, WC1V 7EB. 01-405 8441
Pearl Growth Fd. ...|35.1 37.8| ...| 4.36
Accum Units ...|46.9 50.5| ...| 4.36
Pearl Inc. ...|39.1 42.1| ...| 6.50
Pearl Unit Tst. ...|47.7 50.3xd| ...| 5.37
(Accum. Units) ...|68.9 74.1| ...| 5.37

Pelican Units Admin. Ltd. (g)(x)
57-63, Princess St., Manchester. 061-236 5685
Pelican Units ...|132.8 142.8|+0.5| 5.00

Perpetual Unit Trust Mngmt.♥ (a)
48, Hart St., Henley on Thames 04912 6868
P'petual Gp. Growth ...|80.8 87.2| ...| 3.00
P'petual Gp. Income ...|60.4 65.2| ...| 7.01

Practical Invest. Co. Ltd. (y)(c)
44, Bloomsbury Sq., WC1A 2RA 01-623 8893
Practical July 1 ...|216.2 229.3| ...| 4.54
Accum. Units ...|338.8 359.3| ...| 4.54

Provincial Life Inv. Co. Ltd.♥
222, Bishopsgate, EC2. 01-247 6533
Prolific Units ...|138.4 148.3|-0.8| 3.05
Prolific Gilt Cap. ...|48.8 50.6|+0.3| 3.95
Prolific High Inc. ...|170.0 182.1|-0.2| 7.13

Prudl. Portfolio Mngrs. Ltd.♥ (a)(b)(c)
Holborn Bars, EC1N 2NH. 01-405 9222
Prudential ...|173.5 184.5|+0.5| 4.46
Vanbrugh Gilt ...|94.0 97.5xd|+0.5| 12.28

Quilter Management Co. Ltd.♥
The Stock Exchange, EC2N 1HP. 01-600 4177
Quadrant Gen. Fd. ...|163.6 170.5|+3.6| 4.12
Quadrant Income ...|125.9 129.8xd|-4.1| 8.15
Quadrant Intl. Fund ...|166.6 171.8| ...| 1.12
Quadrant Recovery ...|118.3 122.0|+0.2| 5.46

Reliance Unit Mgrs. Ltd.♥
Reliance Hse., Tunbridge Wells, Kt. 0892 22271
Opportunity Fund ...|87.6 93.6| ...| 5.61
Sekforde Tst. (Acc.) ...|55.5 59.3| ...| 4.65
Sekforde Tst. Inc. ...|48.5 51.9| ...| 4.65

Ridgefield Management Ltd.
1 Finsbury Sq., EC2A 1PD 01-588 6906
Income UT ...|70.1 75.3xd|-0.3| 13.68
International UT ...|136.8 147.1xd|-2.0| 1.34

Rothschild Asset Management (a) (g) (z)
72-80, Gatehouse Rd., Aylesbury. 0296 5941
N.C. Equity Fd. ...|215.3 229.0|+1.2| 3.98
N.C. Engy. Res. Tst. ...|220.2 234.3|-3.0| 2.11
N.C. Income Fd. ...|161.3 171.6|-0.1| 7.69
N.C. Intl. Fd. (Inc.) ...|163.1 173.5|-3.2| 0.55
N.C. Intl. Fd. (Acc) ...|170.0 180.8|-3.2| 0.55
N.C. Smllr. Coys. Fd. ...|282.3 300.4|-0.2| 3.72

Rowan Unit Trust Mngt. Ltd.♥ (a)
City Gate Hse., Finsbury Sq., EC2. 01-606 1066
American July 2 ...|118.0 122.0| ...| 1.16
Securities June 30 ...|290.0 302.0| ...| 3.34
High Yield July 3 ...|60.9 64.0|-0.5| 9.48
(Accum. Units) ...|105.0 110.0|-0.5| 9.48
Merlin July 1 ...|169.7 178.7| ...| 2.32
(Accum. Units) ...|227.6 239.6| ...| 2.55

Royal Tst. Can. Fd. Mgrs. Ltd.
48-50, Cannon St., London EC4M 6LD 01-236 6044
Capital Fund ...|98.2 105.5| ...| 4.00
Income Fund ...|72.0 77.4| ...| 9.70
Prices on June 30. Next dealing day July 15.

For Saturn Fund Mngt. see SIMCO

Save & Prosper Group
4, Great St. Helens, London EC3P 3EP
68-73 Queen St., Edinburgh EH2 4NX
Dealings to: 01-554 8899 or 031-226 7351
[illegible]
Prices at June 24. Next sub. day July 8.

Scotbits Securities Ltd.
Scotbits ...|54.7 58.8|+0.5| 4.06
Scotyield ...|55.0 59.1| ...| 7.53
Scotshares ...|88.8 95.4xd|-0.1| 4.28

Schroder Unit Trust Managers Ltd.
48, St. Martins Lane, WC2. Dealings 0705 27733
[illegible]
*For tax exempt funds only.

Scottish Amicable Inv. Mngrs. Ltd.
150 St. Vincent St., Glasgow 041-221 8844
Equity Trust Accum. ...|105.6 114.0|+0.2| 5.47

Scottish Equitable Fnd. Mgrs. Ltd.♥
28 St. Andrews Sq. Edinburgh 031-556 9101
Income Units ...|67.4 71.7| ...| 4.91
Accum. Units ...|87.1 92.7| ...| 4.91
Dealing day Wednesday.

For Sebag see Carr, Sebag Unit Trust Managers.
For Security Selection see McAnally Fund Management.

SIMCO Money Funds
66, Cannon Street, EC4N 6AE 01-236 1425
SIMCO Call Fund† ...|100.0 — | ...| 11.25
SIMCO 7-Day Fund† ...|100.0 — | ...| 11.32
†Unauthorised—Cash Deposit Funds.

Stewart Unit Tst. Managers Ltd.(a)
45, Charlotte Sq., Edinburgh. 031-226 3271
†Stewart American Fund
Income Units ...|106.0 112.9| ...| 1.89
Accum. Units ...|115.4 123.0| ...| ...
Withdrawal Units ...|86.6 92.3| ...| ...
†Stewart British Capital Fund
Standard ...|204.6 217.8| ...| 6.30
Accum. Units ...|239.5 256.1| ...| 6.30
Dealing †Tues. & Fri. *Wed.

Sun Alliance Insurance Group.
Sun Alliance Hse., Horsham. 0403 64141
Ex. Eq. June 10 ...|£347.40 365.70| ...| 4.36
♥The Family Fd. ...|144.9 154.1|+0.6| 4.14

Swiss Life Pen. Tst. Man. Co. Ltd.(a)(c)
9-12 Cheapside, London, EC2V 6AL. 01-236 3841
Equity Dist.* ...|£110.00 116.40| ...| 5.47
Equity Acc.* ...|£114.00 120.45| ...| 5.47
Fixed Int. Dist.† ...|£93.98 97.38| ...| 13.79
Fixed Int. Acc.† ...|£95.34 98.80| ...| 13.79
*Prices at June 10. Next dealing July 8.
†Prices at July 1. Next dealing Aug. 5.

Target Tst. Mngrs. Ltd.♥(a)(g)
31, Gresham St., E.C.2. Dealings: 0296 5941.
19, Athol Crescent, Edin. 3. 031-229 8621/2
Commodity ...|77.3 83.1|+0.1| 2.24
Energy ...|52.0 55.9xd|-0.1| 2.51
Financial ...|110.3 118.6| ...| 3.54
Gilt Capital ...|130.4 136.5xd|+0.6| 3.25
Gilt. Income ...|86.7 90.8|+0.5| 12.61
Investment Trust ...|54.3 58.4| ...| 3.52
Special Situations ...|38.0 40.5|-0.1| 2.50
American Eagle ...|46.2 49.7xd| ...| 0.96
Malaysia & Sngpre. ...|24.9 26.8|+0.4| 1.38
Pacific Income ...|51.1 54.9|+0.6| 1.25
Pacific Re Inv. ...|59.3 63.8|+0.8| 1.25
Income ...|29.6 31.8xd| ...| 8.45
Extra Income ...|56.5 60.8|+0.2| 10.63
Preference Share ...|11.7 12.7xd| ...| 13.41
Equity ...|53.1 57.1xd|-0.1| 4.96
Income and Growth ...|63.1 68.0xd|-0.4| 2.94
Growth ...|42.8 46.0| ...| 3.23
Professional July 1 ...|236.3 254.9| ...| 4.00
Exty. Ex. Inc. July 1 ...|307.5 332.8| ...| 5.05
Exty. Ex. Acc. July 1 ...|488.9 528.5| ...| 5.05
Cariol H.Y. July 1 ...|37.9 41.0| ...| 9.23
Cariol Acc. July 1 ...|58.7 63.5| ...| 9.23

Tower Unit Trust Mngt. Ltd.
39/45 Finsbury Square, EC2A 1PX. 01-628 2612.
Income & Growth ...|25.3 26.6|-0.1| 6.73
Special Situations ...|35.0 36.8xd|-0.2| 2.02

Trades Union Unit Tst. Managers♥
100, Wood Street, E.C.2. 01-628 8011
TUUI June 1 ...|63.3 67.4| ...| 5.11

Transatlantic and Gen. Secs. (c) (y)
91-99, New London Rd., Chelmsford. 0245-51651
Barbican July 2 ...|97.2 103.3| ...| 5.75
(Accum. Units) ...|172.9 183.6| ...| 5.75
Barb Exempt June 24 ...|56.6 58.1| ...| 3.97
Colemco July 3 ...|198.7 207.4|+3.2| 6.07
(Accum. Units) ...|282.2 299.0|+4.4| 6.08
Fielding Int. July 2 ...|72.5 77.6| ...| 2.43
(Accum. Units) ...|133.0 140.5| ...| 2.43
Glen June 30 ...|82.1 88.8| ...| 3.69
(Accum. Units) ...|117.1 125.4| ...| 3.69
Vangd. Gwth. June 30 |72.3 76.5| ...| 2.70
(Accum. Units) ...|95.1 100.6| ...| 2.70
Vangd. H.Y. June 30 |74.0 78.8| ...| 9.28
Vangd. Tst. July 1 ...|55.6 58.9| ...| 5.67
(Accum. Units) ...|67.6 71.2| ...| 5.67
Wickmr. July 2 ...|66.4 71.2| ...| 4.82
(Accum. Units) ...|122.1 128.9| ...| 4.82
Wickmr. Div. July 3 ...|71.0 76.5|+0.3| 8.45
(Accum. Units) ...|100.3 106.3|+0.3| 8.45

Tyndall Managers Ltd.(a)(b)(c)
18, Canynge Road, Bristol. 0272 32241
24, Castle St., Edinburgh. 031-225 1168
[illegible]

Tyndall & Co.—Deposit Funds
Demand Fund* ...| — — | ...| 11.32
Money Fund* ...| — — | ...| 11.25
*Unauthorised—Cash Deposit Funds.

TSB Unit Trusts (y)
PO Box 3, Keens Hse, Andover, Hants, SP10 1PG. 0264 62188. Dealings to 0264 63432-3
(b) TSB General ...|65.9 72.0|-0.1| 3.93
(b) Do. Accum. ...|93.0 100.2|+0.1| 3.93
(b) TSB Income ...|75.1 80.5|+0.1| 7.22
(b) Do. Accum. ...|93.5 100.6|+0.1| 7.22
(b) TSB Scottish ...|129.7 139.9|+0.4| 2.24
(b) Do. Accum. ...|147.8 159.0|+0.5| 2.24

Ulster Bank♥ (a)
Waring Street, Belfast. 0232 35231
(b) Ulster Growth ...|43.1 46.3|-0.1| 5.52

Unit Trust Account & Mgmt. Ltd.
Regis Hse, King William St, EC4R 9R. 01-623 4951
Friars Hse. Fund ...|59.9 63.8| ...| 4.70

INSURANCE PROPERTY BONDS

Abbey Life Assurance Co. Ltd.
1-3 St. Paul's Churchyard, EC4. 01-248 9111
[illegible]

Albany Life Assurance Co. Ltd.
31, Old Burlington St., W.1. 01-437 5962
[illegible]

AMEV Life Assurance Ltd.♥
2-6, Prince of Wales Rd., B'mouth. 0202 762122
[illegible]

Barclays Life Assur. Co. Ltd.
252 Romford Rd., E7. 01-534 5544
[illegible]

Black Horse Life Ass. Co. Ltd.
71, Lombard St., EC3. 01-623 1288
[illegible]

Canada Life Assurance Co.
2-6, High St., Potters Bar, Herts. P. Bar 51122
Equity Gth. Fd. July 1 | 74.6| ...| —
Retmt. Fed. June 8 ...| 164.8| ...| —

Cannon Assurance Ltd.
1 Olympic Way, Wembley HA9 0NB. 01-902 8876
[illegible]
L & E S.I.F. ...|34.5 36.3| ...| —
L & E S.I.F. 2 ...|37.5 40.0| ...| —
Current value July 2

Capital Life Assurance♥
Coniston House, Chapel Ash W'ton. 0902 28511
Key Invest. Fd. ...| 115.56| ...| —
Pacemaker Inv. Fd. ...| 85.49| ...| —

Charterhouse Magna Gp.♥
Stephenson Hse., Brunel Centre, Bletchley, Milton Keynes. 0908 641272
Chrthse Energy ...| 62.4| ...| —
Magna Bld. Soc. ...| 170.7| ...| —
Magna Managed ...| 168.3| ...| —

Chieftain Assurance Funds
11 New Street, EC2M 4TP. 01-283 3933
Managed Growth ...|218.65 230.16|-0.88| —
Managed Income ...|89.58 94.30|-0.18| —
International (z) ...|149.12 156.97|-0.39| —
High Income ...|91.42 96.24|+0.38| —
Income & Growth ...|92.78 97.67| ...| —
Basic Resources ...|171.60 180.64|-1.32| —
American (z) ...|153.50 161.58|-1.48| —
Far Eastern (z) ...|186.41 196.23|-0.38| —
Cash ...|117.24 123.42| ...| —

City of Westminster Assurance
Ashton House, 499, Silbury Boulevard, Milton Keynes, MK9 2LA. 0908-606101
[illegible]
Series (2) Prices are for policies issued after 1.1.1980.
Series (1) These are bid prices for earlier policies.

Commercial Union Group
St. Helen's, 1, Undershaft, EC3. 01-283 7500
Vn. An. July 3 ...| 92.25| ...| 02.7
Do. Annuity Uts. ...| 25.70| ...| ...
"Hand in Hand" Investment Bond.
Cash ...|102.7 108.1| ...| —
Fixed Interest ...|94.1 99.1| ...| —
Property ...|110.6 116.5| ...| —
Nat West Unit Trust ...|121.9 128.3| ...| —

Confederation Life Insurance Co.
50, Chancery Lane, WC2A 1HE. 01-242 0282
♥Equity Fund ...|269.2 283.3| ...| —
♥Managed Fund ...|265.0 278.9| ...| —
♥PIP Fund ...| 626.0| ...| —
Persl. Pen. Mngd. ...|120.7 127.0| ...| —
Staffguard Man. Pen. |120.7 127.0| ...| —
Group Mngd. Pen. ...|315.4 321.0| ...| —
Fixed Int. Pen. ...|281.5 282.9| ...| —
Equity Pension ...|431.8 442.8| ...| —
Property Pension ...|281.1 288.3| ...| —

Cornhill Insurance Co. Ltd.
32, Cornhill, E.C.3. 01-626 5410
Equity Fund July 1 ...|116.0 122.5|+2.5| —
Fixed Int. Fd. July 1 ...|92.0 97.0| ...| —
Man. Gwt. Fd. July 1 ...|244.5 257.5|+3.0| —
Money Fund July 1 ...|98.5 104.0| ...| —
Cap. Fd. June 15 ...| 171.5| ...| —
G. & S. Spec. Fd. ...| 71.0| ...| —

Credit & Commerce Insurance
120, Regent St., London W1R 5FE. 01-439 7081
C&C Deposit Fund ...|103.0 110.0| ...| —
C&C Equity Fund ...|104.0 115.0| ...| —
C&C Fixed Int. Fd. ...|102.0 108.0| ...| —
C&C Mngd. Fd. ...|155.0 169.0| ...| —

Crown Life
Crown Life Hse., Woking GU21 1XW 04862 5033.
[illegible]

Crusader Insurance Co. Ltd.
Tower Hse, 38 Trinity Sq, EC3N 4DJ 488 2323
Growth Prop. June 2 ...|97.9 109.0| ...| —

Eagle Star Insur./Midland Assur.
1, Threadneedle St., EC2. 01-588 1212
Eagle/Mid. Units ...|73.3 76.0|+0.4| 6.11

Equity & Law Life Ass. Soc. Ltd.
Amersham Road, High Wycombe. 0494 33377
Equity Fd. ...|177.5 186.8|-0.1| —
Property Fd. ...|176.4 185.7| ...| —
Fixed Interest Fd. ...|124.3 130.8|+0.8| —
Gtd. Deposit Fd. ...|125.5 132.1| ...| —
Mixed Fd. ...|154.3 162.4|+0.4| —

Equity & Law (Managed Funds) Ltd.
Amersham Road, High Wycombe. 0494 33377
Ind. Pen. Equity ...|164.4 173.0| ...| —
Ind. Pen. Property ...|126.3 132.9| ...| —
Ind. Pen. Fixed Int. ...|115.9 121.9| ...| —
Ind. Pen. Overseas ...|154.4 162.5| ...| —
Ind. Pen. Cash ...|118.6 124.8| ...| —
Ind. Pen. Balanced ...|133.5 140.5| ...| —
Ind. Pen. Dep. Admin. |118.1 124.3| ...| —
Prices at June 11. Next settlement July 9.
Group Pension Funds—Prices Available On Request.

Family Assurance Society
(See Planned Savings Group)

Assicurazioni GENERALI S.p.A.
117, Fenchurch St., EC3M 5DY. 01-488 0733
Intl. Managed Bond ...|129.6 136.5|+3.8| —

General Portfolio Life Ins. C. Ltd.♥
Crossbrook St., Cheshunt, Herts. Waltham X 31971
Portfolio Fd. Acc. ...| 189.5| ...| —
Portfolio Fd. Init. ...| 172.0| ...| —
Portfolio Man. Acc. ...|53.3 56.1| ...| —
Portfolio Man. Init. ...|49.9 52.5| ...| —

Growth & Sec. Life Ass. Soc. Ltd.♥
48, London Fruit Exchange, E1 6EU 01-377 1016
Flexible Finance ...| 1,214| ...| —
Landbank Secs. ...| 57.97| ...| —
Landbank Secs. Acc. ...|146.9 143.1| ...| —
G. & S. Super Fd. ...| £9.1839| ...| —

Guardian Royal Exchange
Royal Exchange, E.C.3. 01-283 7101
Guardian Assurance
Property Bonds♥ ...|280.7 292.3| ...| —
GRE Linked Life Assurance Limited
[illegible]
GRE Pensions Management Ltd.
[illegible]

Hambro Life Assurance Limited
7 Old Park Lane, London, W1 01-499 0031
[illegible]

Hearts of Oak Benefit Society
129, Kingsway, London, WC2B 6NF 01-404 0393
Hearts of Oak ...|44.9 47.7| ...| —

Henderson Administration
11 Austin Friars, London, EC2. 01-588 3622
High Income Fd. ...|107.6 113.3|+0.1| —
Gilt Edged Fund ...|89.3 94.1|+0.4| —
Capital Growth Fund. |110.6 116.5|+0.3| —
Global Technology ...|105.6 111.2|-1.4| —
Special Situations Fd. |128.4 135.2|-1.8| —
North American Fund |140.6 148.1|-2.5| —
Far East Fund ...|149.0 156.9|-1.6| —
Property Fund ...|100.3 105.6| ...| —
Managed Fund ...|129.8 136.7|-1.1| —
Deposit Fund ...|100.4 105.7| ...| —

Hill Samuel Life Assur. Ltd.♥
NLA Twr., Addiscombe Rd., Croy. 01-686 4355
[illegible]

Imperial Life Ass. Co. of Canada
Imperial House, Guildford. 71255
Growth Fd. July 3 ...|108.5 117.9|+0.7| —
Pen. Man. Fd. July 3 |99.9 108.1|+0.3| —
Unit Linked Portfolio
Managed Fund ...|123.1 129.6|+0.6| —
Fixed Int. Fd. ...|112.7 118.6|-0.2| —
Secure Cap. Fd. ...|121.0 127.4|+0.2| —
Equity Fund ...|142.1 149.6|+2.5| —
Property Fund ...|99.5 104.8|+0.1| —

Irish Life Assurance Co. Ltd.
Basildon House, 7/11 Moorgate, EC2. 01-606 8401
[illegible]

King & Shaxson Ltd.
52 Cornhill, EC3. 01-623 5433
Bond Fd. Exempt ...|£82.61 84.32|+0.45| —

Langham Life Assur. Co. Ltd.
Langham Hse., Holmbrook Dr., NW4. 01-203 5211
Harvest Pen. Fund ...|115.1 121.2| ...| —
Langham 'A' Plan ...|73.2 77.0| ...| —
♥Prop. Bond ...|193.9 204.1| ...| —
Wisp (SP) Man Fd ...|87.8 92.4| ...| —

Legal & General (Unit Assur.) Ltd.♥
Kingswood House, Kingswood, Tadworth, Surrey KT20 6EU. Burgh Heath 53456.
[illegible]
Legal & General (Unit Pensions) Ltd.
[illegible]

Legal & General Prop. Fd. Mgrs. Ltd.
11, Queen Victoria St., EC4N 4TP. 01-248 9678
L & G July 1 ...|120.8 125.8|-0.1| —
Next sub. day August 1.

Life Assur. Co. of Pennsylvania
8, New Rd., Chatham, Kent. Medway 812348
LACOP Units ...|10.91 11.46| ...| —

Lloyds Life Assurance
20, Clifton St., EC2A 4HX 01-247 7699
[illegible]

London A'deen & Nthn. Mtl. Assur. Ltd.
129 Kingsway, London, WC2B 6NF. 01-404 0393
'Asset Builder' ...|55.7 58.7| ...| —

London Indemnity & Gnl. Ins. Co. Ltd
18-20, The Forbury, Reading 583511.
Money Manager ...|49.3 52.2|+0.2| —
M.M. Flexible ...|42.2 44.5|+0.1| —
Fixed Interest ...|40.6 42.8|-0.1| —

London Life Linked Assur. Ltd.
81 King William St., EC4N 7BD. 01-626 0511
Equity ...|142.7 146.9| ...| —
Fixed Interest ...|104.1 104.6| ...| —
Property ...|128.1 132.8| ...| —
Deposit ...|122.1 122.1| ...| —
Mixed ...|124.0 126.6| ...| —

The London & Manchester Ass. Gp.♥
Winslade Park, Exeter. 0392 52155
[illegible]

M & G Group♥
Three Quays, Tower Hill, EC3R 6BQ. 01-626 4588.
[illegible]

Manufacturers Life Insurance Co.
St. George's Way, Stevenage. 0438 56101
Managed ...|168.2 177.0|+3.5| —
Property ...|145.9 153.5|+0.1| —
Equity ...|156.2 164.4|+1.7| —
Gilt Edged ...|167.4 176.2|-1.0| —
Deposit ...|126.7 133.4|+0.2| —
Investment ...|66.8 70.2|+0.9| —
International ...|158.7 167.1|+3.2| —

Merchant Investors Assurance♥
Leon House, 233 High St., Croydon 01-686 9171
[illegible]

NEL Pensions Ltd.
Milton Court, Dorking, Surrey. 5911
[illegible]
Next sub. day July 25.

NPI Pensions Management Ltd.
48 Gracechurch St., EC3P 3HH. 01-623 4200
Managed Fund ...|253.4 264.0| ...| —
Prices July 1. Next dealing August 3.

New Zealand Ins. Co. (UK) Ltd.♥
Maitland House, Southend SS1 2JS 0702 62955
Kiwi Key Inv. Plan ...|263.0 271.1| ...| —
UK Equity ...|106.5 112.2| ...| —
American ...|168.9 177.8|-0.7| —
Pacific ...|270.4 284.7|+2.1| —
Property ...|117.9 124.1| ...| —
Gilt ...|114.1 120.2|+0.4| —
High Inc. Equity ...|106.1 111.8|+0.1| —
High Inc. Fxd. Int. ...|87.2 91.8|+0.3| —
Deposit ...|121.1 127.5|+0.1| —

Norwich Union Insurance Group♥
PO Box 4, Norwich NR1 3NG. 0603 22200
Managed Fund ...|290.7 306.0|+0.6| —
Equity Fund ...|505.9 532.5|+0.4| —
Property Fund ...|192.5 202.6|+0.1| —
Fixed Int. Fund ...|171.3 180.3|+0.9| —
Deposit Fund ...|137.2 144.4|+0.1| —
Nor. Units June 15 ...| 291.6| ...| —

Phoenix Assurance Co. Ltd.
4-5 King William St., EC4P 4HR. 01-626 9876
Wealth Ass. ...|165.4 174.2| ...| —
Eb'r. Ph. Eq. E. ...|124.4 131.7| ...| —

Pioneer Mutual Insurance Co. Ltd.
16, Crosby Rd., N. Waterloo, L'pool 051-928 6655
Pioneer Mkt. Mgd. Fd. |95.3 100.3|+0.5| —

Planned Savings Group
25 Worship St., London, EC2A 2AB. 01-920 0661
1st Managed ...|95.7 101.2| ...| —
1st Fixed Interest ...|68.0 72.0| ...| —
4th Managed ...|56.0 59.4| ...| —
5th Managed ...|67.4 71.4| ...| —
Pension Managed ...|67.37 71.45| ...| —
Family Managed ...|143.3 146.3| ...| —
Do. B Managed ...|78.7 80.3| ...| —
Do. C Britannia ...|60.6 61.8| ...| —
Do. D Fxd. Int. ...|94.5 96.5| ...| —
Family Capital Fund ...|79.5 81.1| ...| —
Family Brit.II ...|49.8 50.8| ...| —

Premium Life Assurance Co. Ltd.
Eastchester Hse., Haywards Heath 0444 58721
American Tech. Fd. ...|122.0 128.6| ...| —
Building Soc. Fd. ...|97.0 103.0| ...| —
Balanced ...|107.0 113.0|+1.0| —
Data Mangd. Fd. ...|93.0 98.0| ...| —
Deposit ...|103.0 109.0| ...| —
Gilt ...|101.0 107.0| ...| —
Natural Resources ...|96.0 101.0|+1.0| —
Property ...|103.0 109.0| ...| —
UK Equity ...|118.0 125.0|-1.0| —
International Equity ...|104.0 110.0|+3.0| —

Prop. Equity & Life Ass. Co.♥
42 Houndsditch, London EC3A 7AY 01-621 1128
R. Silk Prop. Bond ...| 230.0| ...| —
Do. Equity Bond ...| 104.8| ...| —
Flex Money Bond ...| 158.2|-0.4| —

Property Growth Assur. Co. Ltd.♥
Leon House, Croydon CR9 1LU. 01-680 0606
[illegible]
Prop. Growth Pensions & Annuities Ltd.
[illegible]

Providence Capitol Life Assc. Co. Ltd.
30 Uxbridge Road, W12 8PG. 01-749 9111
[illegible]
For Other Funds and Capital Units ring 01-749 9111.

Provincial Life Assurance Co. Ltd.
222, Bishopsgate, EC2. 01-247 6533
Prov. Managed Fd. ...|176.9 186.3|-0.1| —
Prov. Cash Fd. ...|133.5 140.6| ...| —
Gilt Fund ...|131.9 138.9|+0.9| —
Property Fund ...|145.1 152.8| ...| —
Equity Fund ...|175.8 185.1|-0.6| —
Fxd. Int. Fund ...|113.5 119.5|+0.7| —
Managed Pens, Acc. ...|121.1 127.6|-0.2| —
Deposit Pens. Acc. ...|106.5 112.2| ...| —
Property Pens. Acc. ...|106.6 112.3| ...| —
Fxd. Int. Pens. Acc. ...|102.0 107.4|+0.6| —
Equity Pens. Acc. ...|135.0 142.2|-0.5| —
For Capital Unit Prices ring 01-247 6533.

Prudential Pensions Limited♦
Holborn Bars, EC1N 2NH. 01-405 9222
Equity Fd. June 17 ...|£34.75 35.82| ...| —
Intl. Fixed June 17 ...|£6.38 6.58| ...| —
Fixed Int. June 17 ...|£24.49 24.81| ...| —
Prop. Fd. June 17 ...|£46.34 46.54| ...| —

Refuge Investments Limited
108 Oxford St., Manchester 061-236 9432
Managed ...|96.0 101.1| ...| —
Property ...|95.8 100.9| ...| —

Reliance Mutual
Tunbridge Wells, Kent. 0892 22271
Prop Fd. (1st Issue) ...| — 317.3| ...| —
Prop Fd. (2nd Issue) |99.0 104.0| ...| —
Managed Fd. ...|95.9 101.0|+0.1| —

Rothschild Asset Management
St. Swithins Lane, London EC4. 01-626 4356
N.C. Prop. ...|165.9 176.5| ...| —
Next sub. period June 30/July 15.

Royal Insurance Group
New Hall Place, Liverpool. 051-227 4422
Royal Shield Fd. ...|204.1 215.9| ...| —

Save & Prosper Group♥
4, Gt. St. Helen's, Lndn., EC3P 3EP. 01-554 8899
[illegible]
*Prices on July 1.
†Weekly Dealings.

Schroder Life Group♥
Enterprise House, Portsmouth. 0705 27733
[illegible]
Prices are for Life Series 4, July 2.
Pension Series B, June 30. Other prices on request.

Scottish Amicable Investments.
P.O. Box 25, Craigforth, Stirling. 0786 3141
Equity ...|108.2 113.9|+0.2| —
Fixed Interest ...|94.3 99.3|+0.3| —
International ...|117.1 123.3|-0.4| —
Property ...|98.0 103.2| ...| —
Cash ...|97.1 102.3| ...| —
Managed ...|103.7 109.2|+0.2| —

Scottish Widows' Group
PO Box 902, Edinburgh EH16 5BU 031-655 6000
Inv. Ply. July 1 ...|162.4 162.4|+1.2| —
Inv. Ply. St. July 1 ...|152.0 160.1|+1.2| —
Inv. Cash July 1 ...|126.0 132.7|+0.1| —
Ex. U. July 1 ...|193.6 201.9|+1.8| —
Ex. U. Inc. July 1 ...|156.3 163.0|+1.5| —
PM-Man. Fd. July 1 ...|406.9 406.9|+2.3| —
Do.-St. Ex. Fd. July 1 |406.9 406.9|+2.3| —
Do. Prop. Fd. July 1 ...|101.2 101.2|+0.1| —
Do.-Cash Fd. July 1 ...|102.0 102.0|+0.2| —

Skandia Life Assurance Co. Ltd.
161-166 Fleet St., London EC4 2DY 01-353 8511
Managed Acc. ...|119.3 125.6|+0.7| —
Equity Acc. ...|122.6 129.1|+0.9| —
Gilt Plus Acc. ...|102.0 107.4|+0.5| —
International Acc. ...|151.2 159.2|+0.5| —
Pens. Managed Acc. ...|129.5 136.3|+0.8| —
Pens. Equity Acc. ...|133.7 140.7|+1.1| —
For Prices of other Units and Guaranteed Basis Rates please Phone 01-353 8511

For Solar Life Assurance Ltd. see Sun Life Unit Assurance Ltd.

Standard Life Assurance Company♥
3 George St., Edinburgh EH2 2XZ. 031-225 7971.
Managed ...|136.9 144.2|+0.2| —
Property ...|126.9 133.6| ...| —
Equity ...|155.3 163.5|-0.4| —
International ...|158.2 166.6|+0.9| —
Fixed Interest ...|108.5 114.3|+0.5| —
Cash ...|111.3 117.2|+0.1| —
Pension Managed ...|146.5 154.3|+0.6| —
Pension Property ...|121.9 128.4| ...| —
Pension Equity ...|167.5 176.4|-0.4| —
Pension Intl. ...|174.4 183.6|+5.2| —
Pension Fxd. Int. ...|106.6 112.3|+0.1| —
Pension Cash ...|114.4 120.5| ...| —

Sun Alliance Insurance Group
Sun Alliance House, Horsham. 0403 64141
Equity Fund ...|205.3 216.2|+0.4| —
Fixed Interest Fund ...|124.3 130.9|+0.3| —
Property Fund ...|136.1 143.3| ...| —
International Fd. ...|129.1 135.9| ...| —
Deposit Fund ...|123.6 130.2|-0.8| —
Managed Fund ...|161.7 170.3|-0.1| —
Intl. Bond June 30 ...|£14.09 — | ...| —
SAFM Fd Int June 10 |£174.00 187.00| ...| —
SAPL Pty. June 10 ...|£101.80 106.00| ...| —

Sun Life of Canada (UK) Ltd.
2, 3, 4, Cockspur St., SW1Y 5BH 01-930 5400
Maple Lf. Grth. ...| 289.0| ...| —
Maple Lf. Mangd. ...| 171.2| ...| —
Maple Lf. Eqty. ...| 181.0| ...| —
Persnl. Pn. Fd. ...| 288.9| ...| —
Pens. Man. Cap. ...|119.1 125.4| ...| —
Pens. Man. Acc. ...|136.1 143.2| ...| —

Sun Life Unit Assurance Ltd.
107, Cheapside, London, EC2V 6DU. 0272-299 524
[illegible]
Sun Life Pensions Management Ltd. (funds for individual pension contracts)
[illegible]

Target Life Assurance Co. Ltd.
Target House, Gatehouse Road, Aylesbury, Bucks. Aylesbury (0296) 5941
[illegible]

Transinternational Life Ins. Co. Ltd.
2 Bream's Bldgs., EC4A 1NU. 01-405 6497
[illegible]

Trident Life Assurance Co. Ltd.♥
London Road, Gloucester. 0452 36541
[illegible]

Tyndall Assurance/Pensions(a)(b)(c)
18, Canynge Road, Bristol. 0272 32241
[illegible]

Vanbrugh Life Assurance♥
41-43 Maddox St., Ldn. W1R 9LA. 01-499 4923
Managed Fd. ...|200.8 211.4|+0.5| —
Equity Fd. ...|302.6 320.2|+0.8| —
Intnl. Fd. ...|144.6 152.3|-1.4| —
Fixed Int. Fd. ...|183.0 192.7|+0.8| —
Prop. Fd. ...|214.0 225.5|+1.7| —
Cash Fd. ...|151.3 159.3| ...| —

Vanbrugh Pensions Limited
41-43, Maddox St., Ldn. W1R 9LA 01-499 4923
Managed ...|149.9 157.8| ...| —
Equity ...|180.1 189.6| ...| —
Fixed Interest ...|127.0 133.7| ...| —
Property ...|147.0 154.8| ...| —
Index Linked Gilt ...|94.7 99.7| ...| —
Guaranteed ...| 12.62| ...| —

Welfare Insurance Co. Ltd.♥
Winslade Park, Exeter. 0392-52155
Moneymaker Fd. ...| 129.8|+0.8| —
For other funds, please refer to The London & Manchester Group.

Windsor Life Assur. Co. Ltd.
Royal Albert Hse., Sheet St., Windsor 68144
Investor Units ...|110.2 115.9| ...| —
Accum. Pen. Units ...|171.6 180.5| ...| —
Flex. Inv. Growth ...|130.0 136.8| ...| —
Future Assd Growth ...|52.00 57.00| ...| —
Ret. Ass'd Pen. ...| 533.08| ...| —

OFFSHORE & OVERSEAS FUNDS

Adig Investment
Postfach 708, 8000 Munich 1. Telex 52469
Adiropa ...|DM21.09 32.64|+0.21| —
Adiverba ...|DM53.52 56.20|-0.08| —
Fondak ...|DM30.81 32.35|+0.39| —
Fondis ...|DM25.70 26.99|+0.1| —

Albany Fund Management Limited
P.O. Box 73, St. Helier, Jersey. 0534 73933
Albany $ Fd. (C.I.) ...|US$198.22 207.12| ...| 1.40
Next dealing July 31

Alexander Fund
37, rue Notre-Dame, Luxembourg.
Alexander Fund ...| US$14.29| ...| —
Next asset value June 29.

Allen Harvey & Ross Inv. Mgt. (C.I.)
1 Charing Cross, St. Helier, Jsy., C.I. 0534-73741
AHR Dollar Inc. Fd. ...|US$10.42 10.44| ...| 15.75
AHR Gilt Edg. Fd. ...|£10.96 10.98|+0.02| 13.03

Alliance International Dollar Reserves
c/o Bank of Bermuda, Hamilton, Bermuda.
Adv.: ACMI, 319 High Holborn WC1. 404 0377
Distribution July 1/5. 0.002227 (17.6% pa).

Arbuthnot Securities (C.I.) Limited
P.O. Box 284, St. Helier, Jersey. 0534 76077
Dollar Income Tst. ...|US$0.982 1.012xd| ...| —
East Intl. & Energy ...|68.4 71.0| ...| —
Gov't Secs. Tst. (CI) ...|73.4 75.7xd|-0.2| 15.15
Daily Dealings.
Sterling Fd. ...|126.8 126.9| ...| —
Dealing on Wed.

B.I.A. Bond Investments AG
10, Baarerstrasse CH6301, Zug, Switzerland
Bearer Str. (April 16) ...|9,600 10,100| ...| —

Bank of America International S.A.
35 Boulevard Royal, Luxembourg G.D.
Wldinvest Income ...|US$107.59 108.55| ...| 8.75
Prices at June 11. Next sub. day June 17.

Banque Bruxelles Lambert
2, Rue De la Regence B 1000 Brussels
Renta Fund ...|US$45.56 46.98|-0.13| 8.34

Barbican Managers (Jersey) Ltd.
P.O. Box 63, St. Helier, Jersey 0534 74806
Barb. Int. Fund ...|125.0 134.3xd| ...| 2.10

Barclays Unicorn International
1, Charing Cross, St. Helier, Jersey. 0534 73741
Unigilt Trust ...|37.6 39.0xd|-3.1| 14.00
Unidollar Trust ...|US$14.58 15.32| ...| 2.00
Unibond Trust ...|US$88.62 94.51| ...| 11.90
1, Thomas St., Douglas, Isle of Man. 0624 4856
Unicorn Aust. Ext. ...|86.3 92.8xd| ...| 1.10
Do. Aust. Min. ...|90.3 97.2| ...| 1.00
Do. Grtr. Pacific ...|149.3 160.6| ...| ...
Do. Intl. Income ...|29.3 31.6| ...| 11.70
Do. Isle of Man Tst. ...|37.9 40.8xd|-3.4| 12.2
Do. Manx Mutual ...|56.7 61.0| ...| 1.60

Bishopsgate Commodity Ser. Ltd.
P.O. Box 42, Douglas, I.o.M. 0624-23911
ARMAC* June 1 ...|US56.70 60.28| ...| —
COUNT** June 1 ...|£3.314 3.519| ...| 1.49
CANRHO** June 1 ...|£1.334 1.414| ...| —
Original issue *$10 and **£1. Next val. July 6.

Bridge Management Ltd.
GPO Box 590, Hong Kong
N'bashi June 30 ...| Y20.034| ...| —
Nippon Fd. June 30 ...|US$24.76 25.89xd| ...| 1.04

Britannia Intl. Investment Mngmt. Ltd.
Box 271, Queensway House, Queen Street, St. Helier, Jersey C.I. 0534 73114
U.S. Dollar Denominated Funds:
Am. Smaller Cos. Fd. ...|$1.922 2.067|-0.08| —
Gold Fund* ...|$0.851 0.894|+0.01| —
Universal Grwth Fund ...|$1.207 1.298|-0.03| —
World Bond Fund ...|$0.801 0.831|+0.00| 12.50
Sterling Denominated Fds.
American Investments |58.7 63.1xd|-3.7| 11.49
Australian Perf. Fd. ...|153.2 164.7|+8.5| —
Far East Fund ...|213.2 229.2|+6.3| 1.00
High Interest £ Trust ...|78.4 81.4xd|-0.3| 14.70
Jersey Energy Tst. ...|26.6 28.6|+0.7| 7.50
Jersey Gilt* ...|18.8 19.3|+0.1| 14.40
U.K. Growth Fund ...|41.5 44.6|-0.6| 4.00
Sterling Deposit Funds
Managed Currcy. Fd.* ...| £11.51|-0.09| 12.50
Capital Dep. Trust** ...|£12.66 12.67| ...| 0.25
Schlesinger
Intl. Fd. (Jersey) ...|119.1 — | ...| 2.78
Intl. Fd. (Lux.)* ...|US$15.06 — | ...| —
*Daily Dealing—Other Funds Weekly Mondays.
**Tuesday Weekly-Capital Return 11%.

Brown Shipley Tst. Co. (Jersey) Ltd.
P.O. Box 583, St. Helier, Jersey. 0534 74777
Stlg. Bd. Fd. (h) ...|£8.85 8.88xd|+0.02| 14.50
Sterling Cap. Fd. J. (a) |£12.78 12.79| ...| —

Butterfield Management Co. Ltd.
P.O. Box 195, Hamilton, Bermuda.
Buttress Equity ...|US$5.54 5.77| ...| 1.38
Buttress Income ...|2.10 2.18| ...| 10.59
Prices at —. Next sub. day —.

CAL Investments (IoM) Ltd.
16, St. Georges St., Douglas, IOM. 0624 25051
CAL Cmdty. & Cncy. |1.007 1.060| ...| —
Next valuation day July 6.

Capdirex S.A.
P.O. Box 178, 1211 Geneva 12, 010 4122 466288
Fonselex ...|SF169.70 184.00| ...| 1.90
Bondselex ...|SF112.50 118.25| ...| —

Capital Asset Managers Ltd.
Bermuda Hse, St. Julians Ave, St. Peter Port, Guernsey C.I. 0481 26268
The Currency Trust ...|129.0 135.0| ...| —

Capital International Fund S.A.
43, Boulevard Royal, Luxembourg
Capital Int. Fund ...| US$27.40| ...| —

Central Assets Management Ltd.
Channel Hse., St. Helier, Jersey. 0534-73673
Central Assets ...|£194.10 194.14|+0.04| —

Charterhouse Japhet
1 Paternoster Row, EC4 01-248 3999
Emperor Fund* ...|$9.40 9.85| ...| —
Hispano ...|$42.08 44.21| ...| 6.25
*Prices at May 31. Next sub. day July 1.

Chawton Commodities (Isle of Man) Ltd.
29, Athol Street, Douglas, I.o.M. 0624 21724
Normandy Metal Trust |1.2905 1.3584| ...| 4.00
Normandy Com. Tst. ...|1.1238 1.1830| ...| 4.00

Clive Investments (Jersey) Ltd.
P.O. Box 86, St. Peter Port, Guernsey. 0481 26521
C.H. Gilt Growth Fd.* ...|£9.50 9.93| ...| 3.50
Clive Gilt Fd. (C.I.) ...|£8.32 8.70| ...| 15.17
*Prices on July 2. Next dealing July 9.

Cornhill Ins. (Guernsey) Ltd.
P.O. Box 157, St. Peter Port, Guernsey
Intnl. Man. Fd. ...|245.0 266.5| ...| —

Cortexa International
10a, Boulevard Royal, Luxembourg.
Cortexa Intnl. ...|US$10.20 — | ...| —

Continued on previous page

FT SHARE INFORMATION SERVICE

BRITISH FUNDS

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
	"Shorts" (Lives up to Five Years)				
21F 21Aug	Exch. 3pc 1981	99 13/32	15.1	3.03	11.82
17May 17N	Treas. Variable '81‡‡	99¼	10.4	12.41	12.98
23May 23N	Exch. 12¾pc 1981‡‡	100	16.4	12.75	12.43
15Jul 15Ja	Treas. 8½pc '80-82‡‡	98xd	8.6	8.67	12.49
15Aug 15F	Treasury 3pc '82‡‡	95¼	9.1	3.14	11.17
16S 16Mar	Treasury 14pc '82‡‡	101	9.2	13.86	12.30
15D 15Jun	Treas. Variable '82‡‡	99½	11.5	12.44	12.91
5Ja 5Jul	Treasury 8¼pc '82	96¼	1.6	8.57	12.36
22Mar 22S	Exch. 9¼pc 1982	95⅝	13.2	9.67	13.16
5Jul 5Ja	Exch. 8¾pc 1983	94 13/16	1.6	9.21	12.53
21Aug 21F	Exch. 3pc 1983	89	15.1	3.37	10.64
17S 17Mar	Treasury 12pc 1983‡‡	97⅞	9.2	12.32	13.71
24N 24May	Treas. Variable '83‡‡	99	21.4	12.50	12.95
18Ja 18Jul	Treasury 9½pc '83	93⅛xd	11.6	9.87	12.93
22May 22N	Exch. 13½pc '83	99⅝	15.4	13.55	13.62
12Jun 12D	Exch. 10pc 1983	93	6.5	10.75	13.43
15Jul 15Ja	Funding 5½pc '82-84‡‡	87½xd	8.5	6.30	11.44
20Aug 20F	Exch. 11½pc 1984	94⅝	24.11	11.93	13.91
22N 22May	Exchequer 14pc 1984	100⅛	15.4	13.98	13.90
19D 19Jun	Exch. 3pc 1984	81	13.5	3.70	10.67
26Mar 26S	Treasury 12pc 1984	95¼	17.2	12.60	13.81
22Aug 22F	Treasury 15pc 1985	102⅞	16.1	14.58	13.93
22S 22Mar	Exch. 12pc Cnv. '85	94¼	—	12.73	14.01
21N 21My	Treasury 3pc 1985	75⅝	14.4	3.96	10.87
15Jan 15Jul	Treasury 11½pc 1985‡	93¼	—	12.33	13.72
22May 22N	Exch. 12¼pc 1985	94¼	15.4	12.99	14.07
25Aug 25F	Exch. 11¾pc '86	92⅛	19.1	12.73	14.06
19N 19May	Treasury 3pc 1986‡‡	69⅞	—	4.32	11.37
12D 12Jun	Treasury 12pc '86	93	6.5	12.90	14.00
	Five to Fifteen Years				
10Ja 10Jul	Treasury 8¼pc '84-86‡‡	83½xd	3.6	10.16	13.07
22Jul 22Ja	Exch. 13¼pc 1987	96¼xd	15.6	13.78	14.12
1N 1May	Funding 6½pc '85-87‡‡	76⅞	25.3	8.58	12.48
3 May 3N	Treas. 12pc 1987	91¾	29.9	13.36	14.49
26Jul 26Ja	Treasury 7¾pc '85-88‡‡	76¼xd	19.6	10.12	13.21
1Ja 1Jul	Transport 3pc '78-88	61¼	26.5	4.90	11.14
22Aug 22F	Treasury 11½pc 1989	88¼	16.1	13.68	15.07
22Aug 22F	Do. A	89½	—	13.70	15.09
15Ap 15Oct	Treasury 5pc '86-89	63⅜	9.3	8.03	12.42
15Jul 15Ja	Treasury 13pc 1990‡‡	91⅛xd	8.6	14.15	14.71
22Sept 22Mar	Exch. 12½pc 1990	89⅞	—	14.30	15.15
15D 15Jun	Treasury 8¼pc '87-90‡‡	74½	11.5	11.14	13.30
10Jul 10Ja	Treasury 11¾pc 1991	83½xd	3.6	14.07	15.06
5Oct 5Ap	Funding 5¾pc '87-91‡‡	62½	2.3	9.41	12.86
25Ap 25Oct	Exch. 11pc 1991	81⅞	19.3	13.88	15.00
22Jul 22Ja	Treasury 12¾pc '92‡‡	88xd	15.6	14.39	14.94
21Aug 21Fb	Treasury 10pc 1992	78¼	15.1	13.32	14.70
25Fb 25Aug	Exch. 12¼pc '92	89	19.1	14.47	15.14
22Mar 22S	Exchequer 13½pc '92	94½	13.2	14.90	15.25
14Ja 14Jul	Treasury 12½pc '93‡‡	86¼xd	8.6	14.44	14.95
15Mar 15S	Funding 6pc 1993‡‡	60⅛	6.2	10.29	12.86
23May 23N	Treasury 13¾pc 1993‡‡	94⅜	16.4	14.87	15.09
1S 1Mar	Treasury 14½pc '94‡‡	101¼	23.1	15.07	15.16
27O 27Ap	Exchequer 13½pc 1994	93⅛	23.3	14.91	15.18
22F 22Aug	Exch. 12½pc 1994	90⅛	16.1	14.61	15.05
17May 17N	Treasury 9pc '94‡‡	71⅜	10.4	12.83	13.98
25Jul 25Ja	Treasury 12pc '95	82⅛xd	18.6	14.43	14.94
1N 1May	Gas 3pc '90/95	46¼	25.3	6.49	10.43
21Ja 21Jul	Exch. 10¼pc 1995	73⅜xd	15.6	13.79	14.61
15May 15N	Treasury 12¾pc '95‡‡	89¼	8.4	14.58	14.87
22Jul 22Ja	Treas. 14pc '96	93xd	15.6	14.95	15.09
15S 15Mar	Treasury 9pc '92/96‡‡	71½	6.2	13.10	14.06
3N 3May	Treasury 15¼pc '96‡‡	102⅞	27.3	15.21	15.19
15N 15May	Exchequer 13¼pc '96‡‡	92⅛	8.4	14.68	14.88
	Over Fifteen Years				
—	Treas. 2pc I.L. '96‡‡	96½	—	2.28	2.49
1Ag 1Oct	Redemption 3pc 1986-96	46⅜	22.2	6.50	9.94
22Jul 22Ja	Treasury 13¾pc '97‡‡	89⅞xd	15.6	14.64	14.84
21Aug 21F	Exchequer 10½pc 1997	79	15.1	13.97	14.57
1Mar 1S	Treasury 8¾pc 1997‡‡	70⅛	23.1	13.04	13.90
1N 1May	Treasury 6¾pc '95-98‡‡	58¼	25.3	11.83	13.14
30Mar 30S	Treas. 15½pc '98‡‡	106⅛	23.2	15.20	15.14
20May 20N	Exch. 12pc 1998	84	11.4	14.55	14.82
15Jul 15Ja	Treasury 9½pc 1999‡‡	70⅝xd	8.6	13.38	13.97
26S 26Mar	Exch. 12¼pc 1999	87⅛	17.2	14.63	14.86
26S 26Mar	Do. 'B'	88⅝	—	14.61	14.84
19N 19May	Treasury 10½pc 1999	76⅛	13.4	14.04	14.47
14Ja 14Jul	Treas. 13pc 2000	88xd	6.6	14.72	14.87
22N 22May	Treas. 14pc '98-01	95⅜	15.4	14.94	14.99
22Jul 22Ja	Exch. 12pc '99-02	82xd	15.6	14.54	14.72
25Ja 25Jul	Treas. 13¾pc 2000-03	92xd	18.6	14.83	14.89
19S 19Mar	Treasury 11½pc '01-04	83⅛	10.2	14.38	14.52
14Ja 14Jul	Funding 3½pc '99-04	36⅜xd	8.6	9.60	11.31
21May 21N	Treasury 12½pc '03-05	87½	14.4	14.54	14.60
19Ja 19Jul	Tr. 2pc I.L.(£30pd.)‡‡				
5Ap 5Oct	Treasury 8pc '02-06‡‡	63⅝	2.3	12.93	13.25
22Jul 22Ja	Treasury 11¾pc 03-07	81¼xd	15.6	14.39	14.48
26S 26Mar	Treas. 13½pc '04-08	95⅛	17.2	14.50	14.67
10Mar 10S	Treasury 5½pc '08-12‡‡	47¼	2.2	12.09	12.43
26Jul 26Ja	Treasury 7¾pc '12-15‡‡	59½xd	19.6	12.93	13.06
12 Jun 12D	Exch. 12pc '13-'17	86½	6.5	14.00	14.01
	Undated				
1F 1Aug	Consols 4pc	29⅜xd	29.12	13.26	—
1Jun 1D	War Loan 3½pc‡‡	28⅛	27.4	12.37	—
1Ap 1Oct	Conv. 3½pc '61 Aft.	34⅛	23.2	10.46	—
5Ap 5Oct	Treasury 3pc 66 Aft.	22¼	1.9	13.64	—
5Ja.A.J.O.	Consols 2½pc	19	1.6	13.16	—
1Ap 1Oct	Treasury 2½pc	19⅛	23.2	13.54	—

INT. BANK AND O'SEAS GOVT. STERLING ISSUES

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
15F 15A	Int. Bank 5pc '77/82	98⅜	16.1	5.51	14.14
15M 15S	Sweden 13½pc 1986	95¼	—	14.66	15.18

CORPORATION LOANS

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
30A 31O	Bath 11¼pc 1985	89½	31.3	12.57	14.56
1J 1D	Birm'ham 12½pc 1985	94¼	1.5	13.26	14.41
1J 1D	Burnley 13pc 1987	93½	1.5	14.06	14.96
24A 24O	Cardiff 11pc 1986	88¼	24.3	12.68	14.65
25M 25N	G.L.C. 12½pc '82	99⅛	27.4	12.59	13.37
10F 10A	Do. 12½pc 1983	97	12.1	12.89	14.13
15M 11N	Glasgow 9¼pc '80-82	94½	23.4	9.88	13.93
1F 1A	Herts 6½pc 1985-87	69¼xd	2.1	9.60	14.18
—	Leeds 13½pc 2006	89¼	—	15.17	15.19
15M 15N	Liverpool 9½pc '80-84	89¼	15.4	10.86	14.19
1Ja.A.J.O.	Do. 3½pc Irred.	24¼	2.3	14.39	—
15M 15N	Lon. Corp. 13¾pc '83	98	15.4	13.52	14.32
1A 1O	Do. 9¼pc '84-85	88	2.3	10.50	12.97
15J 15J	LCC 5½pc '82-84	79¾xd	15.6	6.90	13.84
11J 11D	Do. 5½pc '85-87	65⅛	11.5	8.40	14.31
10Ja 10J	Do 6¾pc '88-90	63½	10.6	10.60	13.94
1M.J.S.D.	Do. 3pc '20 Aft.	21½	1.5	14.36	—
15J 15D	Sunderland 12¾pc 1984	94½	15.5	12.97	14.23

COMMONWEALTH AND AFRICAN LOANS

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
1A 1O	Aust. 5½pc '81-82	96	27.2	5.81	13.16
1J 1D	Do. 6pc 1981-83	85	30.4	7.10	13.71
1Ja 1J	N.Z. 7¼pc 1988-92	60½	1.6	11.98	14.54
15J 15D	Do. 7½pc '83-86	75½	15.5	9.97	14.70
1A 1O	S. Rhod. 2½pc Non-Ass.	134	3'66	—	—
—	Do. 3½pc 80-85 Assd.	55	10.2	6.47	20.00
—	Do. 4½pc 87-92 Assd.	40	7.1	11.76	17.20
—	Zimbabwe Ann (£100pa)	373	—	—	22.28

LOANS

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
	Public Board and Ind.				
1Ja 1J	Agric. Mt. 5pc '59-89	61	1.6	8.20	12.97
1M 1S	Met. Wtr. 3pc 'B'	26¼	2.2	11.86	14.12
30J 31D	U.S.M.C. 9pc 1982	105	31.12	8.57	—
30J 31D	Do. without Warnts.	93	31.12	9.78	16.90
	Financial				
20J 20D	FFI 14pc '83	98¾	20.5	14.18	14.60
31M 30S	FFI(UK Fn)5½pcDb. '80-2	91½	31.3	6.12	15.06
31M 30N	Do. 6¼pcDb. '81-84	79¼	31.3	8.00	14.80
11Ja 11J	Do. 10¼pc Uns.Ln. '86	86xd	15.6	12.21	14.80
11Ja 11J	Do. 11pc Uns.Ln. '88	83½xd	15.6	13.17	14.40
11Ja 11J	Do. 11¾pc Uns.Ln. '90	83½xd	15.6	14.07	15.25
14Mr. 14S	Do. 12¼pc Un. Ln. 1992	89	14.3	14.64	15.38
30J 31D	Do. 7¼pcADeb. '89-92	58½	18.5	12.60	15.20
31M 30S	Do. 7¼pcADeb. '91-94	58	31.3	13.03	15.10
31M 30S	Do. 9pc 'A' '91-94	68½	31.3	13.72	15.05
28F 31A	Do. 8¾pc Ln. '92-97	64½	26.1	14.65	15.50

FOREIGN BONDS & RAILS

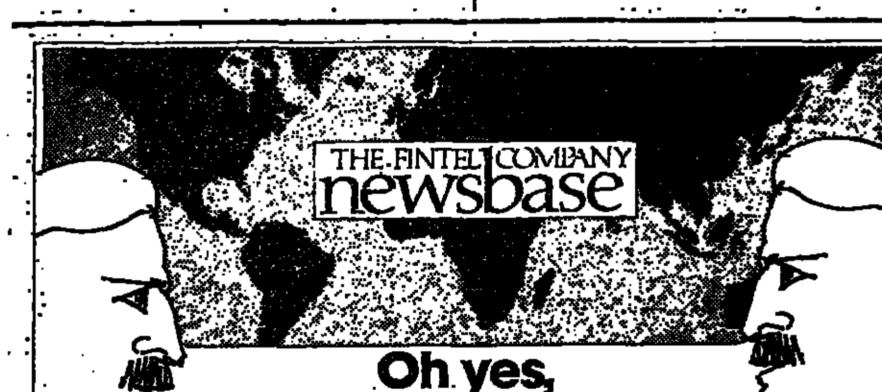
Interest Due	Stock	Price £	Last xd	Div % Gross	Red. Yield
—	Antofagasta Rly	80	8'71	—	—
1Ja 1J	Do. 5pc Pref.	55	2.1	—	—
1Ja 1J	Chilean Mixed	98	24.12	3	13.10
—	Chinese 4½pc 1898	15	—	—	—
—	Do. 5pc 1912	14	—	—	—
—	Do. 5pc 1913	9	—	—	—
—	Do. 5pc '25 Boxer	9	—	—	—
30 Jun. 31D	Denmark 13pc 2005	82	3.6	13	15.94
1M 1N	Greek 7pc Ass.	40	1.5	3½	18.83
1F 1A	Do. 6pc 28 Stb. Ass.	35	2.2	3	18.84
1A 1O	Do 4pc Mixed Ass.	32	2.1	2	16.42
May 1	Hung. '24 Ass.	48	1.5	2¼	15.75
—	Hydro Quebec 15pc Ln 2011	18¼	—	15	15.88
30J 31D	Iceland 6½pc '83-88	67	5.6	6½	14.50
31J 31J	Do. 14½pc Ln. 2016	91½	—	14½	16.66
10Ja 10J	Ireland 7½pc '81-83	86¼	10.6	7½	15.19
1M 1S	Do. 9¾pc '91-96	73¾	13.2	9¾	14.62
1J 1D	Japan 4pc '10 Ass	200	3.6	—	—
30J 31D	Do. 6pc '83-88	67xd	31.12	6	13.02
1A 1O	Peru Ass. 2007	165	1.4	5.22	13.17
—	Pet. Mx 14½pc '06	13½	—	14½	16.23
May 1	Turin 9pc 1991	$77½	1.5	—	11.61
15A 15O	Turin 6½pc 1984	DM90	15.4	—	9.45
1F.M.A.N.	Uruguay 3½pc	96	2.2	3½	3.86

AMERICANS

Dividends Paid	Stock	Price £	Last xd	Div. Gross	C'vr	Y'ld Gr's
Apr. Oct.	ASA	23½xd	4.5	$5.00	—	10.9
M.J.S.D.	AMF 5% Conv. '87	27½xd	19.2	5%	—	12.5
F.My.Ag.N.	Abbott Labs.‖	15⅛	14.4	h72c	—	2.4
Ma.Ju.Se.De.	Amax $1	28⅝xd	6.5	$2.40	—	4.3
Fb.My.Au.Nv.	Amdahl	17½	18.5	Q40c	—	1.2
F.M.A.S.	Amer. Express $0.60	25xd	31.3	♦$2.00	—	4.1
F.My.Au.N.	Amer. Medical Intl. $1	22⅛	27.3	64c	—	1.5
J.A.J.O.	Bank America Corpn.	13	30.4	$1.52	—	6.0
A. J. O. Ja.	Bankers N.Y. $10	17½xd	25.6	$1.85	—	5.4
Mr.Ju. S. D.	Barnes Grp. $6⅔	11¼	26.5	$1.00	—	4.6
D.Mr.Ju.SP.	Bendix Corp. $5	33⅝	8.6	$3.00	—	4.6
M.Je.S.D.	Beth Steel $8	13xd	5.5	$1.60	—	6.3
Ja.Ap.Jy.O.	Brown'g Fer. c16⅔	17	22.12	84c	—	2.6
F.My.Au.N.	Brunswick Corpn.‖	11	18.5	90c	—	4.2
F.My.Au.N.	Burroughs Corp. $5	20⅛xd	25.6	$2.60	—	6.5
MrJuSeDc	CBS $2.50	30	20.5	$2.80	—	4.8
J.Ap.Jy.O.	C.P.C. $½	16½xd	25.6	$1.92	—	6.0
F.My.Au.N.	Caterpillar‖	34½	13.4	$2.40	—	3.6
F.MyAuN.	Chase M'htn.$12.5	28⅜	28.4	$3.10	—	5.6
Mr.Je.S.D.	Chesebrough $1	18	29.5	$1.52	—	4.4
Mr.Jn.S.D.	Chrysler $6¼	363p	5'79	—	—	—
My.Au.N.F.	Citicorp $4	13½xd	23.6	$1.56	—	6.0
My.Au.N.F.	City Inv. $1.25	14½	31.3	$1.60	—	5.7
MyAuN.F.	Do. Cnv. Prf. B $1	22⅝	29.12	$2.00	—	4.5
F.My.Au.N.	Colgate-P. $1	8⅞xd	21.4	$1.12	—	6.5
MaJu.Se.De.	Colt Inds. $1	31	4.6	$2.90	—	4.8
Mr. Je. S. D.	Conoco $5	36¼xd	4.5	$2.20	—	3.1
O Ja Ap Jy	Cons. Foods $1⅓	15	24.2	$1.90	—	6.5
My.A.N.Fb.	Cont. Illinois $10	20½xd	25.6	$1.80	—	4.5
Ap.Jy.O.Ja.	Crown Zell. $5	21⅛	4.6	$2.30	—	5.6
—	Damson Oil US$0.4	680p	—	—	—	—
F.M.A.N.	Eaton Crp. $0.50	18⅝xd	5.5	$1.72	—	4.7
J.A.J.O.	Esmark $1	28⅛	8.6	h$1.47	—	2.6
Mr.Ju.S.D.	Exxon ‖	17¼	11.5	h$3.00	—	8.7
—	Fin. Corp. America	910p	—	68c	—	3.8
Ap.Jy.O.Ja.	First Chicago $5	10¼	1.6	$1.20	—	6.0
J. Ap. Jy. O	Fluor Corp. $⅝	18½xd	25.6	80c	—	2.2
Mr.Je.S.D.	Ford Motor $2	12¼xd	27.4	$1.20	—	5.1
Mr.Jn.S.D.	GATX $⅝	19½	11.5	$2.40	—	6.3
Apr. Oct.	Gen. Elect.$2½	32xd	5.6	$3.20	—	5.1
Mr.Ju.S.D.	Gillette $1	16⅝	28.4	$1.90	—	5.9
F.M.D.N.	Gulf Oil‖	17⅞	3.9	$2.5	—	22.7
Mr.Ju.S.D.	Honeywell $1.50	44	26.5	$3.00	—	3.5
M.J.S.D.	Hutton (E. F.) $1	16	29.5	h80c	—	2.6
Mr.Je.Sp.Dc.	I.B.M. Corp. $1.25	30	8.8	$3.44	—	5.9
Mr.Ju.S.D.	Ingersoll-R $2	34	16.6	$3.40	—	5.1
Mr.Je S.D.	I. U. International‖	805p	10.2	♦$1.10	—	7.0
J.A.J.O.	Int. Tel. & Tel. $1	16	15.5	$2.60	—	8.4
F.MyAuN.	Kaiser Al. $⅓	11⅝	5.5	$1.40	—	6.2
—	Lionel Corp. $0.10	679pxd	7.5	20c	—	1.5
M.A.N.M.	Lone Star Inds.	17½	26.5	$1.85	—	5.4
Ma.Ju.S.D.	Louisiana Land $0.15	18⅝	26.5	$1.80	—	5.1
ApJuOJa	Manf. Han. US$7.50	20xd	25.6	$2.72	—	7.0
FeMyAuN	Merrill Lynch $1	19½	21.4	$1.12	—	2.9
Ju.Ap.Jy.O.	Morgan (JP) US$2.5	30½	16.6	$3.10	—	5.2
N. F. My. Au.	Norton Simon Inc $1	851p	5.5	$1.08	—	6.5
—	Pennzoil	24⅜	22.5	$2.00	—	4.2
Ju.Oc.J.A.	Quaker Oats US$5	17¼	16.6	$1.60	—	4.6
March	Reliance $0.25	45⅜	11.5	$3.00	—	3.4
J.A.J.O.	Rep. N.Y. Corp. $5	20¼	18.3	$1.20	—	3.1
F.MyAuN.	Rexnord $5	937p	11.5	$1.08	—	5.9
S. Dec. Nov.	Rockwell Intl. $1	19¼	18.5	$1.40	—	3.6
Mr.Ju.S.D.	Saul (B. F.) $1	475p	27.3	20c	—	2.2
Mr.Je.S.D.	Shell Oil $1	23⅛	2.6	$1.80	—	4.0
Au.N.F.My.	Sperry Corp. $0.50	24	3.4	$1.92	—	4.1
—	Sun Co. Inc.	18⅜xd	4.5	$2.10	—	5.9
Ma.Ju.Se.Dec.	TRW Inc. $1¼	31xd	4.5	$2.20	—	3.6
Feb My Au Nov	Tenneco $5	19⅝	5.9	$2.60	—	6.8
June Dec.	Do. 10% Ln. Stk. 91-95	138xd	5.5	10%	—	17.2
J. Ap. Jy. O.	Tesoro Pt. US$0.16⅔	989pxd	30.4	30c	—	1.6
Mr.Je.S.D.	Texaco $6.25	18¼	29.1	$2.80	—	7.9
Mr.Ju.S.D.	Time Inc. $1	36¼	25.2	$2.00	—	2.8
Ja.Ap.Ju.O.	Transamerica $1	12¼	2.4	$1.60	—	5.4
M J S D	Union Carbide $1	30	28.4	$3.20	—	5.5
MarJnSpDc	Utd. Tech. $US5	28¼	18.5	$2.40	—	4.3
Mr.Je.S.D.	U.S. Steel $1	15⅛xd	4.5	$2.00	—	6.8
Mr.Je.S.D.	Woolworths $3½	13¼xd	27.4	$1.80	—	7.0
O.Ja.Ap.Jy.	Zapata Corp. 25c	13½	14.4	40c	—	1.5

CANADIANS

Dividends Paid	Stock	Price £	Last xd	Div. Gross	C'vr	Y'ld Gr's
Ma.S.J.D.	Bk. Montreal $2	12¼xd	6.5	$1.76	—	5.7
F.My.Au.N.	Bk. Nova Scot. $1	11⅝	30.3	$1.68	—	5.7
A.Jy.O.Ja.	Bell Canada $8⅓	828pxd	12.6	$1.80	—	8.6
May Nov.	Bow Valley‖	971p	8.6	15c	—	0.8
Oct.	Brascan‖	15½xd	25.6	$1.80	—	4.6
F.MyAuN.	Can.Imp.Bk. $2	12⅝	30.3	$1.92	—	6.1
July Jan.	Can. Pacific $5	19⅝	15.5	$1.90	—	3.8
July Jan.	Do. 4pc Deb. £100	28⅜	19.11	4%	—	14.1
Ja Ap Jy Oc	Can. P. Ent.‖	10¼	26.6	$1.12	—	4.7
J.Ap.Jy.O.	Gulf Can.‖	12½	22.5	44c	—	1.4
Ap.Jy.O.Ja.	Hawker Sid. Can.‖	801p	14.11	96c	—	4.7
F.MyAuN.	Hollinger $5	18½	26.7	$2.20	—	4.7
Apr. Oct.	Hudson's Bay ‖	12⅝	11.5	$1.20	—	3.8
Jan. July	Hud.B.Oil G. $2½	16¼	10.4	32c	—	0.8
Mr.Je.S.D.	Imperial Oil‖	15¾	28.2	$1.40	—	3.5
Jan.Ag.J.O.	Inco‖	10⅛	30.4	$US72c	—	3.6
F.My.Au.N.	Int. Nat. Gas $1	725p	30.10	$1.10	—	6.0
Mr.Je.S.D.	Massey Ferg.‖	158p	11'77	—	—	—
—	Place Gas $1	97p	—	—	—	—
June Dec	Rio Algom	17½	4.5	$1.50	—	3.4
M.Je.S.D.	Royal Bk. Can. $1	12⅛	26.1	$1.60	—	5.2
SeDeMrJu	Seagram Co. C$1	29⅜	18.5	US$1.40	—	2.4
F.MyAuN.	Tor. Dom. Bk. $1	13xd	25.6	$1.60	—	4.9
J.Ap.Jy.O.	Trans Can. Pipe	10¾	25.6	$1.16	—	4.3



BANKS AND HIRE PURCHASE

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan. July	ANZ $A1	328	15.6	t024c	3.6	4.3	6.4
Feb. Aug.	Alexanders D. £1	265	26.1	17.0	—	9.2	—
May Aug.	Algemene Fl.100	£59½	5.5	Q026%	1.9	8.1	6.4
Oct. Apr.	Allen Harvey £1	335	16.3	23.0	—	9.8	—
Dec. June	Allied Irish	184	1.6	Q8.1%	♦	7.7	♦
July	Ansbacher (H.) 5p	20	1.6	0.15	—	1.1	—
Jan. Aug.	Arbuthnot L. £1	340xd	29.6	12.0	—	5.0	—
July Jan	Bk. Ireland £1	290	18.5	Q28.9%	—	7.7	—
May Nov.	Bk. Leumi $0.1	4	13.10	Q012%	—	1.4	—
Aug. Feb.	Bk. Leumi (UK)£1	250	9.2	10.15	—	5.8	—
Jan. July	Bk. N.S.W. $A1	190	15.6	‡Q18c	2.9	5.4	6.3
Nov. May	Bank Scotland £1	420	15	17.5	5.2	6.0	3.4
Apr. Oct.	Barclays £1	440	16.3	18.5	5.5	6.0	3.5
Jan. July	Brown Shipley £1	480xd	29.6	13.0	—	3.9	—
Jan. July	Cater Ryder £1	342	18.5	23.1	—	9.6	—
Feb.Ap.Sep.	Charterhouse Gp.	91	10.4	4.57	1.7	7.1	(8.2)
May Nov.	Clive Dis'nt 20p	36	15	1.5	—	6.0	—
Mar. Oct.	Com'l Aus. ($A1)	438	16.3	‡Q20c	2.9	2.6	13.1
May	Com'zbk DM 10	635	6.5	—	—	—	—
March	C'hgn.Hbk.Kr100	925	24.3	Q14%	—	11.0	—
May	Cred. France F100	£14	17.8	Q17¼%	—	11.6	—
Jan. Apr.	Dawes (G. R.)	16	18.10	—	—	—	—
May	Deutsche Bank DM50	£62¼	14.5	gQ31¼%	—	5.4	—
Mar. Aug.	♦Dunbar Grp. £1	525	26.1	6.2	5.0	1.7	16.9
May Nov.	F. C. Finance	106	14.4	♦—	—	—	—
June Nov.	First Nat. 10p	36	9'74	—	—	—	6.1
—	Do. Wrrts. 75-83	4	—	—	—	—	—
June Dec.	Gerrard Natnl.	280	15	14.0	—	7.1	—
Mar. Aug.	Gillett Bros. £1	252	23	17.71	—	10.0	—
April	Goode D't Mry 5p	32	23	0.75	—	3.4	—
Nov. April	Grindlays	200	16.3	4.13	4.1	2.9	8.9
Mar. Nov.	Guinness Peat	185	23	7.0	—	9.5	—
Dec. July	Hambros	900xd	29.6	22.5	—	3.6	—
Dec. July	Hill Samuel	171	15.6	7.0	—	5.8	—
Sept. Mar.	Hong Shng.$2.50	159	20.3	hQ60c	—	3.5	—
June Nov.	Jessel Toynbee	78	15	5.0	—	9.2	—
Jan. June	Joseph (Leo) £1	260	24.11	10.45	—	5.9	—
June Dec.	King & Shax 20p	96	18.5	5.75	—	8.6	—
May Nov.	Kleinwort B.L.	274	10.4	9.0	—	4.7	—
Aug. Apr.	Lloyds £1	400	23	17.1	6.0	6.1	3.2
Mar. Oct.	Manson Fin. 20p	85	23	♦3.5	1.2	5.9	19.6
Sept.	Mercury Secs	292	14.7	6.5	—	3.2	—
Oct. Apr.	Midland £1	330	30.3	21.5	3.9	9.3	3.2
Dec. June	Do. 7½% 83-93	£66½	1.6	Q7½%	25.4	11.5	—
June Dec	Do. 10¼% 93-98	£73½	18.5	Q10¼%	25.4	15.5	—
Jan. July	Minster Assets	74	1.6	4.0	1.9	7.7	9.9
June Dec.	Nat. Bk. Aust. $A1	180	1.6	‡Q18c	2.8	5.7	6.2
Aug. Mar.	Nat. West. £1	400	23	21.0	5.1	7.5	3.8
June	Ottoman Bank £20	£48xd	29.6	Q37½%	—	7.8	—
Jan. July	Royal Bk. of Scot.	200	18.5	‡4.9	5.3	3.5	7.4
May Nov.	Schroders £1	435	16.3	10.5	—	3.4	—
Jan. July	Seccombe MC £1	265	1.6	18.0	—	9.7	—
Nv. My. Ag.	Sec. Pacific Corp.	£20⅝	30.4	Q$2.20	—	4.7	—
Nov. June	Smith St. Aub.	180	18.5	10.5	—	8.3	—
Apr. Aug.	Stand'd Chart £1	660	10.4	32.5	3.2	7.0	5.3
June	Trade Dev. $1.50	$34	1.6	sQ$1.00	—	2.9	—
Sept. Mar.	Union Disc £1	480	9.2	23.0	—	6.8	—
J. A. Jy. O.	Wells Fargo $5	£17	25.6	Q$1.92	—	5.8	—
—	Westland/Utr. Fl.50	£28½	29.4	Q32%	♦	11.2	♦
Ap.Oct.Dec.	Wintrust 20p	113	23	‡d2.92	—	3.7	—

Hire Purchase, etc.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Feb. Aug.	Cattle's (Hdgs) 10p	32	30.3	0.27	2.6	1.2	(34.1)
May	Cie B'cre Fr.100	£13	16.6	gQ15%	—	12.4	—
Aug. Jan.	Lloyds & Scot. 20p	197	24.12	♦5.57	1.9	4.0	17.6
Dec. June	Lnd.Scot.Fin.10p	51	30.3	‡2.03	2.5	5.7	8.9
January	Moorgate Merc. 10p	20	12.1	0.9	♦	6.6	♦
Oct. Mar.	Prov. Financial	125	16.3	7.02	1.8	8.0	9.8
Mar. Sept.	Strlg. Credit 1p	12½	24.9	—	—	—	—
—	Sturla Hldgs. 10p	10	30.12	F0.35	—	5.0	—
Apr. Oct.	Wagon Finance	45	23	2.31	1.1	7.3	18.5

BEERS, WINES AND SPIRITS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Sept. Mar.	Allied Brews.	74	15.6	5.0	1.8	9.7	(7.0)
Feb. Sept.	Amal. Dist.Pr.10p	86#	9.2	1.0	1.4	1.7	(54.4)
Jan. July	Bass	229	23	‡8.6	2.6	5.4	9.2
Mar. Sept.	Belhaven Brewery	34	11.79	—	—	—	♦
Dec. June	Bell Arthur 50p	132	10.4	‡h4.05	3.9	4.4	6.4
—	Do. 9½pc Cnv. 99-01	£116	1.6	Q9½%	—	F8.3	—
May Oct.	Boddingtons	164	10.4	3.0	3.0	2.6	19.3
Jan. July	Border Brew's	90	18.5	4.9	2.0	7.8	8.5
Aug. Feb.	Brown (Matthew)	180	15.6	‡5.69	2.5	4.5	12.0
Jan. July	Buckley's Brew	54	1.6	2.35	2.5	6.2	7.6
Feb.Ap.Sep.	Bulmer(H.P.)	220	9.2	8.54	2.2	5.5	(9.6)
Feb. Aug.	Burtonwood	343	12.1	5.19	♦	2.2	♦
Fb.My.Aug.Nv	City Lon. Def.	79	10.4	‡4.4	1.1	8.0	16.8
Apr. Oct.	Clark (Matthew)	140	16.3	7.5	2.7	7.7	7.0
Feb. Oct.	Distillers 50p	235	12.1	♦10.75	2.9	6.5	6.4
June	Gordon (L.) 10p	36	10.4	d0.5	1.2	2.0	(54.1)
Aug. Feb.	Greenall Whitley	152	1.6	‡h3.13	3.4	2.9	13.4
Aug. Feb.	Greene King	268	12.1	‡5.5	3.0	2.9	14.8
Aug. Feb.	Guinness	62	15.6	♦4.9	2.2	11.3	4.6
Jan. July	Highl'd Dist. 20p	90	10.4	2.6	2.6	4.1	10.8
Oct. Aug.	Invergordon	187	30.3	4.0	3.9	3.1	9.1
Aug. Feb.	Irish Distillers	55xd	29.6	‡Q15.6%	4.6	5.5	5.1
Ja.Ap.Nov.	Macallan, Glen.	460	10.4	♦6.49	2.3	2.0	(24.0)
Feb. Oct.	Marston Thompson	71	24.12	1.62	3.9	3.3	11.0
June Jan.	Morland	177	1.6	‡3.75	2.3	3.0	20.8
May Aug.	Scott & New 20p	62	23	4.38	q1.7	10.6	(6.5)
Oct. Apr.	Tomatin	73	30.3	0.1	—	0.2	—
Feb. Oct.	Vaux	152	18.5	‡6.83	2.4	6.4	7.8
Jan. Sept.	Whitbread 'A'	169	1.6	6.7	2.6	5.7	7.6
Jan. June	Wolv. Dudley	250	1.6	‡5.0	3.3	2.9	14.5
Dec. Jul.	Young Brew 'A' 50p	245	1.6	5.5	♦	3.2	♦
July Dec.	Do. Non. V. 50p	197	1.6	5.5	♦	4.0	♦

BUILDING INDUSTRY, TIMBER AND ROADS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
June Nov.	Aberdeen Const.	196	18.5	6.42	3.8	4.7	9.1
Jan. July	Aberthaw Cem.	315	18.5	10.0	4.3	4.5	5.6
Jan. Jun.	Allied Plant 10p	27½	18.5	1.89	2.2	9.8	(5.5)
May Nov.	Amcliffe 10p	38	10.4	2.66	♦	10.0	♦
Feb. Aug.	BPB Inds. 50p	247xd	29.6	9.0	2.9	5.2	7.6
Feb. Aug.	Baggeridge Brk.	62	18.5	3.75	3.0	8.6	(4.2)
Jan. July	Bailey Ben 10p	20	1.5	1.44	3.1	10.3	4.5
May Dec.	Barratt Dev. 10p	232	30.3	‡12.35	2.8	7.6	5.4
Feb. Aug.	Beechwood 10p	19xd	29.6	1.0	0.1	7.5	—
Jan. July	Bellway	83	2.6	7.0	2.1	12.0	(4.6)
May Oct.	Benford M. 10p	51	1.5	2.63	2.4	7.4	7.3
Mar. Aug.	Bett Bros. 20p	64	26.1	♦d3.1	2.3	7.0	8.8
Aug. Oct.	Blockleys 20p	125	18.5	6.64	2.4	7.6	6.2
Oct. May	Blue Circle £1	494	1.5	15.0	2.6	4.3	12.7
Oct. May	Breedon Lime	122	10.4	7.63	1.6	8.9	18.3
May Dec.	Brit. Dredging	29	11.76	—	—	—	17.4
May Nov.	Brown Jksn. 20p	60	24.11	9.0	♦	23.4	♦
Jan. July	Brownlee	69	15.6	3.7	2.3	7.7	6.6
Dec. May	Bryant Hldgs.	75	10.4	‡h2.5	3.6	4.8	8.4
Aug. Jan.	Burnett & Hallam	£11¼xd	29.6	11.25	5.4	1.4	13.7
Oct. Apr.	Burt Boulton £1	155	9.2	‡d10.0	4.9	‡	2.4
Jan. July	C. Robey 'A' 10p	40	1.6	2.6	—	9.3	♦
Nov. July	Cal'nder (GM) 10p	71	1.5	d2.25	4.4	4.5	6.0
Jan. July	Carr (John)	54	15.6	hd1.47	4.1	3.9	8.9
May Dec.	Carron	31	10.4	1.29	—	5.9	—
Apr. Oct.	Cement Roadstone	79	30.3	Q30.5%	2.7	7.4	7.1
May. Oct	Comben Gp. 10p	49	30.3	2.55	3.8	7.4	3.9
May Oct.	Conder Int.	133	10.4	7.0	1.6	7.5	(30.1)
July Oct.	Costain Group	218	18.5	10.0	3.3	6.6	4.9
July Oct.	Do. Defd.	200	—	—	—	—	—
Sept. Apr.	Countryside	105	9.2	3.5	3.0	4.8	(7.6)
Oct. April	Crouch (D.) 20p	182	16.3	5.05	2.9	4.0	12.9
May Oct.	Crouch Group	144	16.3	b4.4	1.1	4.4	(30.5)
Apr. Oct.	Douglas Robt. M.	117	23	d4.5	3.7	5.5	6.7
April Oct.	D'wnng G.H. 50p	240	16.3	♦10.5	♦	6.4	♦
—	♦Dunton Grp. 5p	7	—	—	—	—	—
Nov. May	Erith	79	1.5	4.0	2.3	7.2	7.5
Ja. O. July	Fairclough Cons.	117	18.5	4.5	3.3	5.5	6.3
Jan. July	Feb. Intl. 10p	67	1.5	h2.0	3.8	4.3	6.8
Jan. July	Do. 'A' 10p	64	1.5	h2.0	3.8	4.5	6.5
Jan. May	Finlan (John) 10p	140	10.4	4.0	♦	4.1	♦
Mar. Sept.	Francis Pkr. 10p	23	17.5	0.35	2.1	2.2	(24.4)
Jan. July	French Kier	85	18.5	3.25	3.3	5.5	6.3
Apr. Oct.	Galliford Br. 5p	83	16.3	4.62	3.3	8.1	5.1
May	Gibbs D'dy A 10p	19	30.3	1.25	2.9	9.4	(4.2)
July Feb.	Gleeson (M.J.) 10p	90	1.6	‡2.56	1.8	4.2	19.2
July Oct.	Glossop W. & J.	59	15.6	4.62	1.1	11.2	10.9
Mar. Sept.	H.A.T. Grp. 10p	67	12.1	‡2.0	2.6	4.3	10.5
Jan. Sep.	Helical Bar	26	1.6	2.75	1.6	15.1	5.4
Dec. July	Henderson (P. C.)	148	18.5	9.0	2.8	7.7	6.3
Jan. June	Hewden St. 10p	37	18.5	1.28	1.9	4.9	(12.9)
Jan. Aug.	Heywood Wms.	30	14.7	—	—	—	—
Dec. June	Higgs & Hill	122	10.4	4.3	2.7	5.6	(7.5)
June Dec.	Hoveringham	78	1.6	2.9	2.3	5.3	10.6
June Dec.	Do. Res. Vtg.	72	1.6	2.9	2.3	5.8	9.8
Mar. Sept.	Howard Shut 10p	40	26.1	d2.0	2.8	7.1	7.0
April Oct.	I.D.C. 20p	86	9.2	d5.06	1.3	8.4	12.8
Nov. May	Ibstock Johnsen	74	10.4	4.5	1.2	8.7	(12.6)
Apr. Oct.	Int. Timber	86	9.2	4.0	♦	6.8	♦
April Sept.	Jarvis (J.)	208	16.3	‡12.0	3.8	8.2	4.5
—	‡‡Jayplant	7	—	—	—	—	18.0
Apr. Sept.	Jennings $A0.50	88	3.3	‡Q12%	0.8	‡	33.8
July	Jones Edwd. 10p	27	6.77	—	—	—	83.7
July	Lafarge S.A F100	£25¼xd	29.6	Q22.5%	♦	7.6	♦
June Oct.	Laing (John)	52	18.5	2.88	1.1	8.1	(14.8)
Jan. Aug.	Latham (J.) £1	127	24.12	‡9.1	2.5	10.2	(4.5)
Jan. July	Lawrence (W.)	146	1.5	7.5	2.6	7.3	(6.0)
Feb. Dec.	Leech (Wm) 20p	79	18.5	6.6	1.6	11.9	(6.2)
June Dec.	Leyland Paint	38	18.5	1.0	2.8	3.8	(18.8)
Nov. June	Lilley F.J.C.	153	1.5	5.0	3.7	4.7	6.5
Jan. July	London Brick	70	20.4	4.37	2.7	8.9	4.7
Apr. Nov.	Lovell (Y. J.)	250	26.1	7.0	2.8	4.0	6.9
—	♦McLaughlin & H.	77	10.4	5.25	3.4	10.2	3.7
Mar. Sep.	Magnet & Sthns.	152	26.1	h5.0	2.9	4.7	9.8
Nov. June	Manders (Hldg)	168	10.4	4.8	2.7	4.1	12.7
May Oct.	Marchwiel	126	2.3	6.0	0.1	6.8	—
Mar. Oct.	Marshalls (Hfx)	103	9.2	4.5	♦	6.5	♦
Feb. Aug.	May & Hassell	77	24.12	4.6	3.4	8.5	3.8
Jan. July	M.D.W.	95	18.5	4.5	3.9	6.8	4.1
Feb. Sept.	Meyer (Mont. L.)	71	24.12	‡6.25	3.0	‡	3.0
Oct. Feb.	Milbury	66#	8.12	4.9	♦	11.1	♦
Apr. Nov.	Miller (Stan) 10p	25	10.4	1.4	♦	13.3	♦
Oct. Apr.	Mixconcrete	81	30.3	4.5	2.1	7.1	9.5
Nov. May	Mod. Engineers	26	18.5	3.0	0.9	16.5	(11.1)
July Sep.	Monk (A)	48	11.8	‡1.25	—	3.7	—
Jan. July	Mowlem (J)	168	18.5	8.75	2.6	7.4	6.0
June	Newarthill £1	400	1.5	d7.0	5.7	2.5	8.6
Aug. Feb.	Nott. Brick 50p	120xd	29.6	6.62	2.6	7.9	5.7
Feb. Oct.	Phoenix Timber	124	24.12	‡5.0	1.3	‡	17.9
Jun. Dec.	Pochins	255	18.5	9.0	4.1	5.0	6.9
June Dec.	R.M.C.	193	1.5	9.0	2.7	6.7	6.7
Jan. Oct.	Redland	172	24.12	7.34	a1.7	6.3	11.1
—	Redland (£ Wrnts.)	£74	—	—	—	—	—
Oct. May	R'ch'ds. Wall 10p	20#	28.4	8—	—	—	—
July Dec.	Roberts Adlard	129	18.5	8.0	3.0	8.9	5.3
—	Rohan Grp. 10p	170	1.9	gQ150%	4.2	7.0	5.1
Dec. July	Rowlinson 10p	50	15.6	d0.61	3.3	1.7	22.4
Nov. May	Ruberoid	88	10.4	3.75	3.0	6.1	7.9
Jan. July	Rugby P. Cement	74	1.5	4.7	2.2	9.1	(5.9)
Apr. Oct.	SGB Group	144	2.3	5.3	4.5	5.4	5.0
Oct. May	Sharpe & Fisher	40	10.4	1.8	2.6	6.4	8.5
May Oct.	Sheffield Brick	32	18.5	1.75	0.2	7.8	—
Dec. June	Smart (J.) 10p	59	15.6	bd3.6	1.5	8.7	10.6
Jun. Dec.	Streeters 10p	27	6'78	—	—	—	9.6
July Nov.	Tarmac 50p	386	18.5	16.0	3.1	5.9	6.3
July Oct.	Taylor Woodrow	563	1.5	s13.31	3.4	3.4	10.5
May Oct.	Tilbury C'tg £1	260	1.5	22.58	—	12.3	—
May Oct.	Travis & Arnold	179	1.5	3.94	6.7	3.1	5.0
Jan. July	Tunnel B	418xd	29.6	15.5	q2.3	5.3	9.7
Jan. July	UBM Group	58	1.6	3.0	0.9	7.4	24.2
Aug. Feb.	Vectis Stone 10p	33	12.1	1.8	2.6	7.9	9.0
Mar. Oct.	Vibroplant	225	9.2	d14.53	2.3	9.2	5.4
Apr. Oct.	Ward Hldgs. 10p	52	2.3	d4.2	3.0	11.5	(3.2)
—	Do. Defd.	37	—	—	—	—	—
Dec. July	Warrington	73	18.5	4.73	1.6	9.3	8.1
May Nov.	Watts Blake	197	1.5	3.25	4.4	2.4	11.6
Jan. July	Westbrick Prods.	60xd	29.6	4.0	1.1	9.5	13.1
Jan. June	Western Bros	77	16.6	—	—	—	—
Apr. Sept.	Whatlings	24	30.6	‡0.9	—	‡	—
Nov. May	Whit'gh'm 12½p	168	30.3	6.75	3.7	5.1	5.3
Mar. Oct.	Wiggins Con. 10p	51	8.12	‡1.9	—	5.3	—
Oct. July	Wilson(Connolly)	143	1.5	hd2.25	8.5	2.2	5.8
Jan. June	Wimpey (Geo)	115	18.5	2.55	5.2	3.2	6.8

CHEMICALS, PLASTICS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan. May	Akzo Fl.20	500	5'80	—	—	—	—
Apr. Sept.	All'd Colloid 10p	152	26.1	2.54	2.1	2.4	(32.2)
July Nov.	Anchor Chem.	70	13.10	2.38	0.5	4.9	—
Mar. Sept.	Arrow Chemicals	43	16.6	—	—	—	—
July	BASF AG DM50	£28⅝xd	29.6	Q14%	♦	5.2	♦
July	Bayer AG. DM.50	£29	6'80	Q21.9%	1.3	8.2	9.6
Oct. Apr.	Blagden Noakes	102	16.3	6.0	2.1	8.4	(6.6)
May Nov.	Brent Chems 10p	183	29.5	h2.0	2.8	2.8	21.4
Jan. Aug.	Brit. Benzol 10p	15	14.7	—	—	—	—
Feb. Aug.	Brit. Tar Prd. 10p	34	24.12	2.1	♦	9.2	♦
Jan. May	Catalin	50	4'80	—	—	—	—
Dec. June	CibaG'gy 7¼% Ln.	£102	30.6	Q7¼%	♦	17.4	—
Mar. Sept.	Do.8%Cnv81/94	£90	30.3	Q8%	♦	19.1	—
Mar. Sept.	Do.8¼%Cnv.82/95	£88½	30.3	Q8¼%	♦	19.6	—
Feb July	Coalite Group	123	15.6	4.16	q4.3	4.8	5.2
Jan. July	Coates Bros.	58	18.5	3.0	3.1	7.7	4.6
Jan. July	Do. 'A' NV	55	18.5	3.0	3.1	8.1	4.4
Sept. June	Cory (Horace) 5p	15	1.5	1.3	1.5	12.8	(6.3)
Jan. June	Croda Int. 10p	46½	1.5	3.1	1.3	9.5	(8.5)
—	Croda Int. Defd.	26	—	—	—	—	—
April	Dixor-Strand 5p	13	3'79	—	—	—	—
Feb. Oct.	Ellis & Everard	132	26.1	6.5	1.4	7.0	14.4
Jan. July	Fisons £1	147	1.5	10.0	—	9.7	—
May Nov.	Halstead (J.) 10p	39½	1.9	2.4	3.7	8.7	3.7
Aug. Feb.	Hksn. Welch 50p	185	12.1	7.5	2.3	5.9	10.8
Dec. May	Hoechst DM5	288	6'80	Q21.9%	1.5	8.3	7.8
June Dec.	Do.Fn.10%Uns.Ln.	£95	15.6	Q10%	—	11.0	—
Apr. Nov.	Imp. Chem. £1	280	23	17.0	1.5	8.7	(9.9)
Feb. Aug.	Do. 5%Pf. £1	36½	15.6	3.5	40.7	13.7	—
Feb. Aug.	Int. Paint	160	15.6	3.51	3.8	3.1	9.2
July Nov.	Laporte Inds. 50p	125	1.5	7.0	1.2	8.0	14.4
Jan July	Leigh Ints 5p	155	15.6	5.63	1.8	5.2	(33.3)
—	♦Morley (R. H.) 10p	46	—	b4.75	1.3	15.1	7.2
November	Norsk H. Kr100	£32½	27.4	gQ12%	9.0	3.1	6
—	Novo Inds. A/S 'B'	£180½	24.4	Q13%	5.8	0.8	23.5
Feb. July	Plysu 10p	93	15.6	2.08	3.9	3.2	9.8
Apr. Sept.	Ransom Wm. 10p	222	23	‡5.6	4.0	3.6	9.9
May Nov.	Rentokil 10p	151	16.3	2.55	2.8	2.4	19.7
Apr. Nov.	Scot. Ag. Ind. £1	190	23	14.75	2.1	11.6	5.2
Feb. Nov.	Stewart Plastics	152	9.2	d2.74	4.0	2.6	13.9
May Oct.	Thurgar Bardex 10p	14	10.4	0.9	1.2	9.2	(12.2)
Nov. May	Wolstenholme	185	1.5	5.75	2.6	8.1	6.1
Apr. Oct.	Yorks Chems	37	4'80	—	—	—	—

DRAPERY AND STORES

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
July Feb.	Allebone 10p	27	18.5	1.0	—	5.3	—
Apr. Oct.	Amber Day 20p	26½	16.3	2.86	—	15.4	—
Jan. June	Aquascutum 5p	36	10.4	2.05	1.3	8.1	(12.8)
Jan. June	Do. 'A' 5p	28	10.4	2.05	1.3	10.5	(10.0)
Aug. Feb.	Baker's Strs. 10p	156xd	29.6	‡h1.32	8.8	1.2	11.0
Jan. July	Bambers Stores 10p	69	18.5	1.55	3.6	3.2	9.4
Mar. June	Beattie (J) 'A'	157	18.5	4.5	3.8	4.1	9.2
Jun. Nov.	Bentalls 10p	40	1.5	1.35	1.4	4.8	18.2
Feb. Sept.	Boardman KO 5p	10½	1'80	‡0.1	18.3	‡	4.1
January	Bolton Text. 5p	19	24.11	1.25	—	9.4	—
Jan. July	Bremner	56	1.5	4.3	1.2	11.0	18.6
Jan. July	Brit. Home Strs.	148	18.5	4.5	2.6	4.3	11.4
Feb. Aug.	Brown (N) 20p	65xd	29.6	4.5	♦	9.9	♦
Mar. Aug.	Burton Grp. 50p	128	15.6	5.5	1.6	6.1	(12.1)
May Nov.	Cantors 'A' 20p	37	29.9	‡d2.3	—	‡	—
June Dec.	Casket (S.) 10p	28	1.5	1.75	0.9	8.9	(18.0)
Oct. Apr.	Church	184	30.3	8.0	2.8	6.2	(6.5)
Nov. July	Comb. Eng. 12½p	45	1.5	3.15	1.1	10.0	(13.1)
Aug. Feb.	Comet R. Serv. 5p	133	15.6	d3.82	2.6	4.1	(18.5)
March	Cornell Dress 5p	175	3'80	—	—	—	—
April Oct.	Courts 'A'	90	23	3.7	♦	6.0	♦
June Dec.	Currys	190	1.5	h4.5	3.4	3.4	9.0
Sept. Dec.	Debenhams	102	27.10	6.37	1.6	9.3	(8.2)
Apr. Nov.	Dewhirst 10p	79	1.5	h1.2	4.0	2.2	13.4
Mar. Oct.	Dixons Photo 10p	165	26.1	‡3.32	3.8	2.9	10.0
June Nov.	Ellis & Gold 15p	29	18.5	2.15	1.7	10.6	(6.8)
Nov. June	Empire Stores	96	18.5	5.1	2.0	7.6	9.2
April Oct.	Executex 20p	31xd	29.6	1.86	♦	8.6	♦
Jan. July	Fine Art Devs. 5p	66	1.6	F3.0	2.4	6.5	8.2
May Oct.	Ford (M'tin) 10p	25½	2.3	1.3	0.6	7.3	41.5
Feb. Aug.	Formminster 10p	125	12.1	4.2	4.0	4.8	7.4
Jan. July	Foster Bros	86	1.6	3.35	3.0	5.6	7.6
June Oct.	Freemans (Lon)	108	10.4	3.7	2.5	4.9	9.3
Apr. Oct.	Gelfer (A.J.) 20p	56	2.3	‡3.7	2.2	9.4	7.7
July Feb.	Goldberg A.	68	1.6	5.25	♦	11.0	♦
—	Goodman Br. 5p	11½	29.9	0.96	1.4	11.9	8.3
Jan. June	Grattan Ware	90	10.4	4.12	1.1	6.5	(18.0)
Mar. Dec.	Gt. Universal	447	9.2	11.62	3.2	3.7	11.7
Mar. Dec.	Gus A	442	9.2	11.62	3.2	3.8	11.6
Aug. Apr.	Greenfields 10p	37½	16.3	2.15	—	8.5	—
May Nov.	Harris Queensway	232	1.5	6.0	1.7	3.7	22.5
—	♦Heelamat 10p	113	—	b5.6	2.6	7.1	6.7
Mar. Sept.	Helene Lon. 10p	21½	9.2	1.48	2.4	10.3	5.0
June Dec.	Do. 12pc Cnv. Pf.	205	18.5	12.0	42.6	8.4	—
May Nov.	Henriques A 10p	22½	1.5	1.5	1.4	9.5	10.1
Jan. June	Hepworth (J.) 10p	99	18.5	3.79	1.8	5.5	14.7
June Nov.	Hiltons 20p	93	10.4	4.72	2.0	7.3	8.2
June Nov.	Home Charm 10p	128	1.5	d2.5	3.4	2.8	11.6
Dec. July	House of Fraser	176	1.5	6.6	2.0	5.4	12.8
Nov. June	House of Lerose	96	10.4	6.0	2.3	8.9	6.9
Apr. Aug.	Jones (Ernest) 10p	106xd	29.6	d3.9	2.6	5.3	9.1
Sept.	Kean & Scott	44	—	—	—	—	—
June Dec.	Kunick 10p	8#	28.4	0.27	—	4.7	—
Oct. Apr.	Ladies Pride 20p	57	2.3	3.4	2.1	8.5	8.1
Aug. Nov.	Lee Cooper	148	1.6	2.74	4.3	2.6	9.4
May Nov.	Liberty	138	18.5	1.7	—	1.8	—
May Nov.	Do. Non Vtg. Ord.	78	18.5	1.7	—	3.2	—
Sept. Apr.	Lincroft K. 10p	34#	3'80	—	—	—	—
Jan. July	Lowland Drapery	25	2.6	‡1.5	—	‡	—
Nov. Apr.	MFI Furniture 10p	58	9.2	2.62	3.0	6.5	6.1
Jan. July	Marks & Spencer	126	1.6	3.8	1.9	4.3	17.2
Feb. July	Martin News	252	15.6	‡9.35	3.5	5.3	5.9
Jan. July	Menzies (J.)	240xc	29.6	h3.75	4.2	2.2	12.0
Oct.	Michael (J) 10p	14#	8'73	—	—	—	—
July Nov.	Milletts Leis. 20p	145	1.6	6.95	1.2	6.8	(18.0)
July Jan.	Mothercare 10p	204	18.5	5.0	2.7	3.5	15.3
July Feb.	NSS News 10p	173	18.5	‡3.4	4.9	2.8	10.0
Feb. Aug.	N'tha. Goldsmith	70	15.6	3.51	1.9	7.2	8.7
Oct. Apr.	Oliver (G.) "A"	103	30.3	4.4	2.9	6.1	6.3
June Dec.	Owen Owen	242	1.5	4.25	4.7	2.5	9.0
Jan. July	Paradise (B) 10p	39	12.78	g3.5	0.7	12.8	16.1
Jan. Dec.	Pawson (W.L.)	14½	6'80	—	—	—	—
Jan. Apr.	Peters Stores 10p	124	10.4	3.5	4.1	4.0	6.6
Feb. Oct.	Polly Peck 5p	345	9.2	20.1	—	—	—
Feb. Sept.	Preedy (Alfred)	60	24.12	3.35	1.5	8.0	10.2
Apr. Dec.	Pullman R. & J. 5p	57	16.3	3.81	2.9	9.5	(4.5)
January	Ramar Text. 5p	7	10.11	0.24	2.3	4.9	(10.3)
Mar. Sept.	Ratners 10p	53	26.1	2.3	3.5	6.2	5.1
Mar. Oct.	Raybeck 10p	56	26.1	‡4.3	1.2	11.0	(10.0)
Dec. July	Readicut 5p	18	1.6	0.1	—	0.8	—
July Dec.	Reed Austin 'A'	78	10.4	3.36	1.9	6.2	10.1
April Oct.	S&U Stores 12½p	12	27.6	—	—	—	—
March Sept.	Do. 25%Pf. 12½p	17	27.6	—	—	—	—
Feb. July	Samuel (H) 'A'	145xd	29.6	6.25	♦	6.2	♦
Dec. July	Selincourt 5p	14	1.6	1.14	8.5	11.6	(48.8)
Feb. July	Smith W. H. 'A' 50p	162	1.5	4.6	2.2	4.1	14.7
—	Sonic Sound 10p	104	—	b4.48	1.9	6.2	10.1
May Nov.	Stanley A.G. 5p	64	10.4	d2.5	2.0	5.6	(10.7)
Feb. Aug.	Stead. & Sim 'A'	51	12.1	3.5	♦	10.3	♦
Oct. Apr.	Steinberg 10p	28½	9.2	‡d1.1	—	‡	—
July	Sumrie 20p	52	15.6	1.5	4.1	4.1	6.4
Jan. July	Time Prods. 10p	55½	15.6	2.25	♦	5.8	♦
Jan. July	Tricoville 10p	82	18.5	2.68	4.2	4.7	7.1
Feb. July	UDS Group	77	15.6	6.21	1.0	11.5	(12.5)
June Dec.	Upton (E) 'A'	38	10.11	0.5	—	1.9	—
Oct. May	Vantona 20p	124	18.5	8.0	1.4	9.6	(9.3)
May Nov.	Walker (Jas.)	84	30.3	4.0	2.9	6.8	(5.7)
May Nov.	Do. N.V.	74	30.3	4.0	2.9	7.7	(5.0)
May. Nov.	Waring & Gillow	156	30.3	5.5	2.7	5.0	10.4
F. Apr. Oct.	Wearwell 5p	90	9.2	0.1	♦	—	♦
Jan. Sept.	Wharf Mill 10p**	32½#	12.78	‡0.6	—	‡	—
May Nov.	Wilkson Warbtn.	76	10.4	6.29	3.3	11.8	(2.8)
Apr. Oct.	Woolworth	57	16.3	4.79	1.3	12.0	(8.8)

ELECTRICALS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
June Dec.	A.B. Electronic	132	30.3	‡7.5	—	‡	—
—	♦Air Call	210	1.5	g4.2	3.0	2.9	(12.9)
April Nov.	Amstrad	167	2.3	gd3.3	2.8	2.8	14.7
July Feb.	Arlen Elect.	39	1.5	‡d3.0	1.6	‡	8.3
Jan. June	Audiotronic 10p	6½	8'79	—	—	—	—
Feb. Aug.	Do. 12pc Pfg. Pref.	6	8'79	8—	—	—	—
Nov. May	Auto'ted Sec. 10p	373	10.4	2.4	5.9	0.9	19.5
July Jan.	BICC 50p	265	1.5	9.43	2.0	5.1	(11.4)
Apr. Nov.	BSR 10p	55	3'80	—	—	—	—
Feb. Aug.	‡‡Baker Elec. 10p	37	—	3.85	—	—	—
July Jan.	Berec	57	1.6	3.4	♦	8.5	♦
Jan. June	Bowthorpe 10p	191	18.5	2.96	3.6	2.2	16.7
Jun Nov.	Brocks 10p	18#	24.9	‡1.28	—	‡	—
July Nov.	Bulgin 'A' 5p	24½	1.6	1.35	1.4	7.9	11.6
July Dec.	Chloride Grp.	27	6'80	—	—	—	—
Jan. Oct.	Concord Rota. 10p	46	3'80	0.1	—	0.3	—
April Nov.	CrayEl'tronic 10p	109	9.2	‡2.0	2.6	2.6	21.4
February	Crystalate 5p	80	24.12	1.54	2.8	2.8	18.6
April Oct.	Dale Elect. 10p	66	2.3	‡4.12	0.9	‡	17.6
Feb. July	Derritron 10p	10	12.79	‡0.57	—	‡	—
Jan. Sept.	Dewhurst 'A' 10p	10½	9.2	0.15	0.7	2.0	—
May Dec.	Dowding & M. 10p	27	10.4	1.65	2.1	8.7	7.6
Oct. June	Dreamland 10p	20	18.5	1.2	1.5	8.6	(9.6)
Jan. July	Dubilier 5p	52	1.6	1.4	3.3	3.8	(8.6)
Feb. Oct.	Elect'comps 10p	790	24.11	9.75	♦	1.8	♦
Nov.	Electronic Mach.	40	9'75	—	—	—	9.6
Jan. Aug.	Elect. Rentals 25p	116	15.6	4.31	♦	5.3	♦
May Nov.	Emess Lighting	143	10.4	‡6.0	3.8	6.0	4.8
Jan. Aug.	Energy Servs. 10p	34½	1.6	0.75	3.1	3.1	13.0
Feb. May	Eurotherm Int. 10p	302	9.2	d4.5	2.8	2.1	18.9
June Nov.	Farnell Elec. 20p	538	18.5	5.2	4.4	1.4	23.7
Feb. Aug.	Ferranti 50p	580xd	29.6	6.5	q4.7	1.6	14.4
July Jan.	Fidelity Rad. 10p	46	1.6	0.1	—	0.3	—
June Oct.	First Castle 10p	110	15.6	1.79	3.2	2.3	15.4
May Nov.	Forward Tech.	103	10.4	5.27	1.3	7.3	(7.3)
Mar. Oct.	G.E.C.	760	9.2	10.25	q4.7	1.9	13.8
October	♦Hadland (J.)	44	—	u2.52	6.4	2.4	9.2
Jan. July	Hawthorn L. 50p	146	8.12	‡3.5	1.9	3.4	18.3
January	Highland El. 20p	22	24.11	1.0	—	6.5	—
Oct. Apr.	Jones Stroud	80	9.2	‡5.2	1.8	9.3	7.6
Jan. Jun.	Kode Int.	325	16.3	6.69	2.9	2.9	15.6
June Oct.	Lec Refrig.	192	10.4	5.55	4.6	4.1	6.9
Jan. July	M.K. Electric	225xd	29.6	12.0	1.9	7.6	8.5
—	‡‡Macdine Elec. 10p	3	—	—	—	—	—
—	Do. 12pc Pfg. Pf. 10p	2¼	—	1.2	—	62.3	—
—	Mitel Corp.‖	£16½	—	—	—	—	—
Nov. July	Molynx 20p	15	28.8	—	—	—	—
Ju. A.J.O.	Motorola $3	£35⅝	22.6	Q$1.60	—	2.3	—
Mar. July	Muirhead	107xd	29.6	Z1.0	—	1.3	—
Jan. July	Newman Inds.	18	12'79	8—	—	—	—
Mar. Oct.	Newmark Louis	355	9.2	‡10.5	3.3	4.2	10.1
July Apr.	Normand El. 20p	31	24.12	1.09	3.1	5.0	(7.2)
Mar. Sept.	Perkin-Elmer 4pc	£195	9.2	Q4%	—	12.0	—
Jan. July	Petbow Hldg 10p	58	12'79	—	—	—	—
Nov. Apr.	Phicom 10p	42	18.5	1.0	2.5	3.4	(13.5)
May Dec.	Philips Fin. 5¾%	£48	18.5	Q5¾%	—	12.1	—
Dec. May	Philips Lp. F10	460	14.5	Q18%	1.3	7.6	9.7
Apr. Oct.	Pifco Hldgs. 20p	197	10.4	‡4.8	5.1	3.5	7.1
Apr. Oct.	Do. 'A' 20p	195	10.4	‡4.8	5.1	3.5	7.0
July Jan.	Plessey 50p	335	1.5	7.63	q2.5	3.3	14.1
Apr. Nov.	Pressac 10p	31	30.3	1.26	1.1	5.8	22.0
—	‡‡Quest Auto. 10p	225	—	1.0	♦	0.6	♦
Feb. Aug.	Racal Electrics	420xd	29.6	4.55	q3.4	1.5	22.5
Jan. July	Rediffusion	182	8.12	5.5	q2.8	4.4	15.8
—	♦Scan Data 10p	140	—	u2.0	4.4	2.0	11.9
May Nov.	Scholes (GH)	285	30.3	‡18.52	1.4	‡	7.0
Jan. Oct.	Security Centres	98	8.12	‡1.3	1.7	1.9	51.7
July Feb.	Sony Co. Y50	£11	23.4	F088%	♦	0.9	♦
October	Sound Diffsn. 5p	110	11.8	1.05	1.8	1.4	(50.6)
May Oct.	Std. Tel. & Cables	500	10.4	10.0	2.7	2.9	16.7
November	Suter Electrical 5p	70	—	‡1.74	4.7	3.5	12.7
—	Do. Defd. 5p	60	—	—	—	—	—
Apr. Nov.	Telefusion 5p	45	16.3	1.5	1.9	4.8	(4.0)
Apr. Nov.	Do. 'A' N/V 5p	44	16.3	1.5	1.9	4.9	(3.9)
Dec. June	Tele. Rentals	380	18.5	8.25	2.2	3.1	18.6
Mar. Oct.	Thorn EMI	396	26.1	14.62	3.2	5.3	6.9
Jan. July	Do 7pc Cnv Pf 92-96	111	18.5	7%	19.9	9.0	—
Apr. Dec.	Thorpe F. W. 10p	95	30.3	2.45	4.5	3.7	8.7
Apr. Oct.	Unitech 10p	256	9.2	‡6.09	2.5	3.4	16.9
Jan. July	Utd. Electronic 20p	67	24.11	1.57	♦	3.4	♦
Oct. Apr.	Utd. Scientific	448#	18.5	‡5.0	3.0	1.6	29.0
December	Vitatron N.V. Fl 0.25	65	27.10	—	—	—	—
Feb. Oct.	Ward & Gold	100	24.12	5.4	2.5	7.7	(6.0)
—	‡‡Webber El. 12½p	110#	—	d3.5	1.6	4.6	(14.0)

ELECTRICALS—Continued

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan. Aug.	Wellco Hlds. 5p	21½	1.6	‡1.0	2.8	6.6	7.3
Apr. Oct.	Wstn. Select 20p	39	18.5	—	—	—	—
December	Whitworth El. 5p	76	15.9	1.31	8.6	2.5	9.2
April Oct.	Wh'tale Fig.10p	258	9.2	‡h3.75	4.2	2.1	13.8
Nov. April	Wigfall (H.)	270	28.7	6.0	2.4	5.2	(11.0)

ENGINEERING MACHINE TOOLS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Apr. Oct.	Al Ind. Prods.	25	30.3	0.01	—	—	—
Oct. June	A.P.V. 50p	286	10.4	9.0	3.6	4.5	6.9
October	Abwood 10p	11	30.3	—	—	—	—
April Dec.	Acrow	56	13.10	‡3.0	1.0	‡	(19.3)
April Dec.	Do. 'A'	28	13.10	‡3.0	1.0	‡	(9.6)
May Nov.	Adwest Group	185	1.5	7.43	3.3	5.7	6.7
Oct. Apr.	Allen W.G.	50	2.3	♦3.11	3.4	8.9	4.0
Jan. July	Amal. Power	85	1.5	‡5.0	2.0	8.4	(8.1)
Feb. Aug.	Andsn. S'clyde	93½xd	29.6	4.0	♦	6.1	♦
Oct. May	Ash & Lacy	288	10.4	12.5	3.4	6.2	5.2
Mar. Sept.	Ass. British 12½p	28	26.1	‡0.5	3.8	2.6	88.4
Feb. Sept.	Assoc. Tooling	58	8.12	3.86	1.0	9.5	15.3
Oct. Apr.	Astra Ind'l. 10p	18¼	26.1	0.79	3.0	6.2	6.0
May Nov.	Aurora Hlds	26	13.10	1.55	—	8.5	—
Apr. Oct.	Austin (James)	60	2.3	♦4.67	2.1	11.1	6.0
Nov. May	Babcock Intl.	123	10.4	7.0	1.0	8.1	(10.7)
April	Bailey (C. H.)	7¼	24.3	—	—	—	17.9
Feb. Aug.	Baker Perk. 50p	83xd	29.6	5.1	♦	8.8	♦
May Nov.	Bamro Cons. 20p	67	30.3	3.0	3.5	6.4	(4.9)
Nov. May	Barton & Sons	25	1.5	2.4	0.9	13.7	(21.1)
May Dec.	Beauford 10p	24	27.10	0.7	1.3	4.2	(24.0)
Feb. Oct.	Bevan (D.F.) 5p	12½	2.3	‡d1.7	—	‡	14.3
Mar. Sept.	Birmid Qualcast	23	28.7	1.5	0.8	9.3	(21.8)
Jan. Sept.	Brmnghm. Mint	215	8.12	10.0	3.0	6.6	5.6
Aug. Feb.	B'ham Pallet 10p	53	12.1	‡2.5	1.5	‡	14.3
M. J. S. D.	Black & Decker $0.50	£10	5.6	Q76c	—	3.9	—
June Dec.	Blackw'd Hodge	33	10.4	2.5	0.9	11.3	(14.8)
May Dec.	Boulton Wm 10p	10¼	13.10	‡1.35	0.8	‡	(11.9)
Feb. Sept.	Braham Mill 10p	14½	28.7	‡0.6	0.8	‡	29.2
Jan. Oct.	Braithwaite £1	113	24.12	7.0	2.5	8.8	6.4
Jan. Nov.	Brasway 10p	41	24.12	‡4.0	3.5	‡	2.3
Jan. July	B'house Dud. 10p	48xd	29.6	3.2	♦	9.5	♦
November	Brit. Channel 10p	4	24.9	0.4	0.6	16.3	(21.8)
May Oct.	Brit. Aluminium 50p	80	16.9	7.5	2.3	13.4	(3.7)
July	British Northrop	14	5'79	—	—	—	—
Jan. Aug.	Brit. Steam 20p	188xd	29.6	5.25	1.6	6.9	(18.7)
July Feb.	Brockhouse	28	12.1	‡3.0	—	‡	—
Feb. Nov.	Brom's Cast 10p	46	24.11	2.25	♦	7.2	♦
Nov. May	Bronx Eng. 10p	15	30.3	1.08	3.0	10.3	(3.6)
Mar. July	Brooke Tool	42½xd	29.6	‡3.5	1.9	‡	(5.3)
May Sept.	Brotherh'd P. 50p	156	24.11	3.0	♦	2.8	♦
Apr. Aug.	Brown & Tawse	122	2.3	6.4	♦	7.8	♦
Apr. Sept.	Brown (John)	96½	9.2	4.25	b1.7	6.3	11.4
Sept. Mar.	Bullough 20p	172	9.2	10.75	2.4	8.9	6.5
May Dec.	Burgess Prod.	44	10.4	‡4.0	3.6	‡	2.4
Feb. Aug.	Butterfield Hvy.	25½	18.6	1.0	—	5.8	—
Mar. July	Camford Eng.	22	16.6	‡1.63	—	‡	—
Jan. June	Capper-Neill 10p	63	15.6	4.2	2.4	9.5	5.0
Feb. Aug.	Carclo Eng.	59	26.1	‡5.2	2.8	‡	3.2
Oct. May	Cartwright R. 10p	52	30.3	3.0	1.2	8.2	(12.8)
Feb. July	Castings 10p	33	15.6	2.42	♦	10.5	♦
July Jan.	Chamberlin & Hill	54	1.6	2.75	4.7	7.3	3.1
Feb. July	Chemring 5p	253xd	29.6	‡4.0	3.7	2.3	17.3
Feb. Oct.	Christy Bros.	32	2.1	8—	—	—	—
Jan. May	Clayton Son 50p	84	1.5	6.0	2.5	10.2	4.4
Apr. Oct.	Clifford (Ch.) £1	42	12.5	—	—	—	—
Aug. Feb.	Cohen (A) 20p	295xd	29.6	7.5	♦	3.6	♦
Jan. July	Concentric 10p	32	1.6	‡3.31	1.3	‡	7.4
Feb. Sept.	Cook W. Shef. 20p	12	2.3	‡d1.3	4.0	‡	2.6
Jan. June	Cooper (Fr) 10p	22	18.5	‡d1.5	5.2	9.7	2.1
April Oct.	Cooper Inds. 10p	9½	1.9	‡1.25	1.0	‡	(7.1)
Aug. Feb.	Cronite Group	21	26.1	1.87	—	12.7	—
Feb. Oct.	Crown House	73	24.12	‡5.25	2.2	10.3	6.3
June Dec.	Cummins 78/94	£110	25.2	Q3¼%	—	3.4	—
Jan. Sept.	Danks Gowerton	23	28.12	‡0.56	—	‡	—
Oct. Apr.	Dvs.& Met. 'A' 10p	28	30.3	1.47	2.1	7.5	(7.2)
Apr. Oct.	Davy Corp.	190	16.3	6.7	1.4	5.0	17.7
Jan. June	Delta Group	47½	18.5	3.64	2.3	10.9	4.6
Feb. July	Dennis J.H. 10p	23	30.6	‡3.6	0.9	‡	(8.1)
Mar. July	Deritend 50p	96	15.6	6.6	0.5	9.8	(27.0)
Oct. May	Desoutter	110	10.4	5.7	♦	7.4	♦
Dec. July	Downiebrae 10p	22	27.10	0.9	1.6	5.8	13.2
Apr. Sept.	Drake & Scull 1p	37	2.3	2.75	1.7	10.6	(6.6)
Dec. May	Ductile Steels	52	27.10	‡7.0	—	‡	—
	For Duport see Industrials						
Jan. Sept.	Edbro (Hldgs)	57	14.7	—	—	—	—
Feb. Oct.	Elliott (B.)	173	9.2	8.0	2.0	6.7	(8.6)
Jan. Aug.	Eva Industries	43½	14.7	1.0	—	3.4	—
May Oct.	Evered	23	2.6	8—	—	—	—
May Oct.	Expanded Metal	57	1.5	4.5	1.0	11.3	(13.5)
June Dec.	Farmer (S.W.)	160	1.5	9.17	2.5	8.2	6.6
April	Fife Forge	69	30.3	4.0	2.9	8.3	4.7
Apr. Oct.	Firth (G. M.) 10p	59	2.3	3.0	0.4	7.3	—
Feb. Aug.	Folkes Hfo n/v 5p	21	15.6	d1.4	1.4	9.5	(9.8)
	For Francis Inds. see Industrials						
Jan Aug	GEI Intnl. 20p	80xd	29.6	5.32	♦	9.5	♦
Nov. June	Garton Eng. 10p	41	18.5	4.15	0.6	14.5	(26.1)
June Dec.	Glynwed	90	18.5	7.35	1.6	11.7	(6.4)
May Dec.	Greenbank 10p	24½	10.4	d1.35	2.6	7.9	7.0
Nov. June	Green's Econ.	117	1.5	h4.93	2.5	6.0	7.6
May Jan.	G.K.N. £1	143	30.3	8.0	—	8.0	—
Jan. Aug.	Habit Precision 5p	19	11.8	0.55	♦	4.1	♦
May Nov.	Haden	193	1.5	h6.25	3.2	4.6	7.4
May Nov.	Hall Eng. 50p	178	30.3	7.61	4.3	6.1	4.1
Feb. July	Hall Matthew	288xd	29.6	h4.26	4.1	2.9	8.8
Apr. Oct.	Hallite 50p	122	9.2	♦7.75	2.6	9.1	4.8
Apr. Sept.	Hampson 5p	9½	2.3	‡d0.73	2.7	10.9	4.3
July Dec.	Hawker Sid.	336	18.5	8.2	3.5	3.5	9.5
Oct. Apr.	Hill & Smith	50	9.2	hd3.18	2.7	9.1	5.9
Mar. Oct.	Hopkinsons 50p	94	18.5	5.65	1.8	8.6	(7.7)
Nov. Mar.	Howard Machy.	22	25.2	—	—	—	—
May Oct.	Howden Group	145	10.4	3.6	3.5	3.5	8.9
Jan. May	Hunt Moscrop 5p	12½	30.3	‡0.9	0.8	10.3	(21.2)
—	Do. Defd. 5p	6½	—	—	—	—	—
May Oct.	I.M.I.	63	30.3	N4.5	2.1	10.2	(5.6)
Aug. Mar.	Jackson J&HB 5p	69xd	29.6	1.55	4.3	3.2	8.8
July Jan.	Jenks & Cattell	74	18.5	‡4.0	1.7	‡	(9.1)
Jan. June	Johnson & Firth	20	16.6	‡1.3	1.7	‡	10.0
May Oct.	Jones Shipman	52	30.3	3.6	2.9	9.9	4.5
June Nov.	Laird Group	140	15	3.7	4.2	3.8	6.9
Apr. May	Lake & Elliot	33	10.4	‡1.71	0.8	7.4	(24.8)
Dec. May	Lane (Percy) 10p	43	10.4	b2.5	2.8	8.3	(4.9)
July Feb.	Lee (Arthur) 12½	13	30.6	‡0.44	—	‡	—
Mar. July	Ley's Foundries	28	9.2	‡2.0	3.7	‡	(2.9)
Dec. June	Linread	26	10.11	‡2.0	2.8	‡	(5.0)
Jan. Aug.	Lloyd (F.H.)	35	30.6	0.5	—	2.0	—
Jan. July	Locker (T) 5p	13½	15.6	1.06	1.5	11.2	7.1
Jan. July	Do. 'A' 5p	11½	15.6	1.06	1.5	13.2	6.1
Apr. Nov.	M.L. Holdings	310	9.2	‡7.0	4.4	3.2	8.3
December	Mangan Bronze	28	10.11	2.17	2.2	11.1	(5.2)
Jan. June	Martonair 20p	240	1.5	♦7.6	3.0	4.5	8.6
June Jan	McKechnie Bros.	106	1.5	7.28	2.8	9.8	4.9
Oct. Apr.	Meggitt 5p	14	9.2	0.84	1.1	8.6	(13.7)
Oct. Apr.	Metalrax 5p	41	30.3	h2.18	2.5	7.6	6.1
May July	Midland Inds. 5p	88	18.5	d2.6	0.1	4.2	—
September	Mining Sup. 10p	171	13.10	‡2.0	4.1	1.7	21.1
Jan. Sept.	MitchellSom.10p	28	28.7	‡3.5	2.6	‡	5.7
May Nov.	Molins	160	10.4	7.9	2.8	7.6	5.7
July Jan.	Moss Eng'g	100	18.5	5.95	1.8	8.5	(8.0)
Apr. Oct.	Neepsend	13	1.9	‡3.32	—	‡	—
June Nov.	Neill (Jas) Hdgs	38	13.18	1.4	1.5	5.3	(14.5)
May Nov.	Newman Tonks	49	10.4	5.1	1.4	14.9	(6.1)
Nov. July	Northern Eng.	81	1.5	g3.75	2.4	6.6	(7.4)
Sept. Feb.	Norton (W. E.) 5p	5	11.2	‡0.4	—	‡	—
—	♦Parkfield Fndry 5p	18	—	0.88	6.4	6.9	3.2
Jan. Aug.	Pegler-Hatt'sley	170xd	29.6	9.5	2.1	8.0	7.3
Jan. June	Porter Chad. 20p	50	1.6	2.6	1.6	7.4	(18.2)
Apr. Aug.	Pratt (F)	92	9.2	6.0	1.7	9.3	(7.2)
Apr. Nov.	Prestwich Parker	32	10.3	‡0.5	—	‡	—
Sept. Mar.	Priest (Ben)	33½	9.2	♦6.79	1.8	25.2	2.6
Jan. July	R.C.F. Holdings	22	10.12	—	—	—	—
May Nov.	Raine Eng'g 10p	12	16.3	‡0.43	1.4	‡	(17.7)
July Jan.	R.H.P.	81½	1.6	5.46	3.5	9.6	3.2
May Nov.	R'nsomes Sim. £1	192	30.3	11.14	2.6	8.3	(5.1)
Mar. Sept.	Ratcliffe Inds	42	13.10	‡5.25	2.1	‡	3.9
Nov. May	Ratcliffs (G.B.)	63	16.3	1.5	2.4	3.4	(14.5)
Apr. Oct.	R'dmn H'nan 10p	58	9.2	4.2	—	10.7	—
Aug. Feb.	Renold £1	42	8.12	2.0	♦	6.8	♦
June Nov.	Richards (Leics.)	52	10.4	4.3	2.2	11.8	4.5
Jan. July	Rich'ns West. 50p	28	1.5	2.1	1.5	10.7	11.4
Oct. May	Robinson (Thos.)	85	10.4	5.0	1.3	8.4	(12.8)
Nov. June	Rotork 10p	55	10.4	2.2	3.7	5.7	5.8
Mar. Oct.	Saville G. (10p)	43	9.2	‡h2.44	3.3	8.1	4.6
Nov. June	Senior Eng'g 10p	23	10.4	1.5	3.8	9.3	4.2
Feb. Aug.	Serck	40	24.12	‡3.4	1.2	‡	(9.4)
Jan. July	Shaw Francis 20p	15	16.6	—	—	—	—
July Dec.	Simon Eng'g	434	18.5	12.0	3.5	4.0	9.2
Aug. Jan.	600 Group	66	15.6	5.25	♦	11.4	♦
August	Smith (Whit.) 5p	13	28.8	—	—	—	5.6
Jan. May	Spear & Jackson	110	1.5	6.58	1.8	8.5	7.6
July Mar.	Spencer Clk. 20p	30	16.8	‡2.7	—	‡	—
Jan. July	Spencer Gears 5p	14	18.5	‡1.0	3.2	‡	3.4
Nov. June	Spirax-Sarco	148	10.4	4.4	2.7	4.2	12.3
July Jan.	Staveley Inds. £1	260xd	29.6	13.0	2.0	7.1	9.9
Nov. May	Stone-Platt	14	27.18	0.1	—	1.0	—
Jan. Apr.	Stothert & Pitt £1	118	27.10	1.0	—	1.2	—
Oct. May	Sykes (Henry)	30	14.4	—	—	—	—
Apr. Sept.	Tace 10p	24	28.7	0.85	2.3	5.1	9.3
Jan. Aug.	Tecalemit	50xd	29.6	2.08	♦	6.0	♦
Feb. Sept.	Tex. Abras. 10p	58	24.12	3.17	3.1	7.8	5.4
May	Thyssen Dm10	320	—	Q12.5%	1.1	4.2	22.8
Oct. Apr.	Tomkins F.H. 5p	17	9.2	‡1.35	4.1	‡	2.6
Jan. Aug.	Triplex F'dries	35xd	29.6	1.0	—	4.1	—
May Oct.	Tube Invests. £1	150	30.3	15.0	1.2	14.3	(8.2)
June	Turriff	120	18.5	4.0	5.1	4.8	4.4
July Dec.	Utd. Eng'g 10p	245	10.4	4.3	2.4	2.5	19.8
July Feb.	Utd. Spring 10p	16	24.12	‡2.05	3.5	‡	1.7
July Jan.	Utd. Wire Group	40	18.5	5.75	0.9	20.5	(8.3)
Jan. June	Vickers £1	162	18.5	12.0	2.2	10.6	(4.9)
Apr. Oct.	Victor Products	155	30.3	4.25	3.4	3.9	8.3
Sept. May	Vosper	120	24.3	—	—	—	—
Nov. June	Wadkin 50p	74	1.5	3.25	—	6.3	—
Mar. Oct.	Wagon Industr'l	82	9.2	h5.0	3.0	8.7	4.8
June Nov.	Walker (C.& W.)	26	26	—	—	—	—
July Oct.	Weeks Assoc. 10p	11	1.6	0.1	—	1.3	—
Jan. May	Weir Group	27	19.11	—	—	—	2.8
Mar. Sept.	Wellman Eng'g	53	26.1	3.35	2.6	9.0	5.7
Dec. Aug.	W. Brom Sp'g 10p	14	26.9	‡1.3	3.4	‡	3.2
July Feb.	Westland	120	15.6	‡6.0	4.4	7.1	4.9
Jan. June	Whessoe	108	16.5	‡3.0	—	4.0	20.1
Jan. June	Wheway Wtsn. 10p	7½	30.6	‡1.15	—	‡	—
Jan. July	Williams (W.)	14	12.5	—	—	—	—
Nov. Apr.	W'ms & James	86	30.3	2.41	—	4.0	—
July Jan.	Wolsl'y Hughes	243	15.6	‡12.5	3.3	7.4	5.2
Apr. Nov.	W'bwell Fdy. 10p	10	30.6	‡0.37	—	‡	—
Feb. Aug.	Wood (S.W.) 20p	25	24.12	‡5.2	1.1	‡	4.3
Oct. Apr.	Wh'seRixn 12½p	16	16.3	1.4	2.8	12.5	3.6
Jan. May	Yarrow 50p	270	1.5	‡8.15	3.2	4.3	10.4

FOOD, GROCERIES, ETC.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Dec. July	Alpine Soft D 10p	140xd	29.6	7.7	2.2	7.9	8.5
May	Argyll Foods 10p	117	8.12	1.2	—	1.5	—
Jan. June	Ass. Biscuit 20p	81	1.5	4.44	1.4	7.8	(10.4)
Mar. Sept.	Ass. Brit. F'ds. 5p	158	23	3.8	3.9	3.5	8.3
Feb. Oct.	Ass. Dairies	200	9.2	‡3.75	3.6	2.7	15.0
Apr. Nov.	Ass. Fisheries	61	2.3	1.0	0.3	2.3	—
Apr. Oct.	Avana Group 5p	293	9.2	5.0	♦	2.5	♦
Apr. Oct.	Banks (Sidney C.)	136	2.3	‡5.25	3.9	5.5	5.2
Apr. July	Barker & D 1p	7	—	—	—	—	—
Aug. Apr.	Barr (A.G.)	236xd	29.6	4.89	5.3	3.0	7.4
June Dec.	Barrow Mill 20p	34	8.12	Q38.1%	2.1	17.3	3.9
Aug. Apr.	Bassets (Geo)	70	28.12	1.5	—	3.1	♦
Mar. Sept.	Batleys York 10p	57	12.1	‡d2.86	2.9	7.2	(5.2)
Feb. April	Bejam 10p	138	30.3	‡2.25	3.7	2.3	12.6
Oct. July	Bishop's Stores	175	15.6	4.0	♦	3.3	♦
Jan. July	Do. "A" N/Vg.	114	15.6	4.0	♦	5.0	♦
July Oct.	Bluebird Conf.	56	29.6	4.35	1.1	11.1	11.6
Apr. Oct.	Brit. Sugar 50p	333	18.5	b22.0	2.6	9.4	(4.6)
October	Brit. Vend'g 10p	20½	16.6	—	—	—	—
Jan. June	Brooke Bond	52	18.5	3.91	1.6	10.7	7.1
Jan. July	Cadbury Sch'ps	88	18.5	4.1	2.3	6.7	(7.8)
Jan. June	Carr's Milling	76	15.6	4.0	2.9	7.5	(5.2)
May Nov.	Chambers & Fargus	34	10.4	1.5	3.2	6.3	7.2
May Oct.	Clifford Dairies	174	30.3	4.0	3.3	3.3	(13.1)
May Oct.	Do. "A" N/V	113	30.3	4.0	3.3	5.1	(6.6)
Dec. June	Cullens 20p	266	24.11	4.3	♦	2.6	♦
Dec. June	Do. "A" 20p	212	24.11	4.3	♦	3.0	♦
Jan. July	Danish Bcn. 'A' £1	102	18.5	3.5	—	4.9	—

FOOD, GROCERIES—Cont.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan. June	England (J. E.) 5p	26	1.5	0.8	0.8	4.4	46.2
Jan. Oct.	F.M.C.	80	15.9	6.0	2.3	10.7	4.7
January	Fisher (A.) 5p	12½	8.12	0.31	3.7	3.6	11.5
Mar. Sept.	Fitch Lovell 20p	75	16.4	‡5.2	1.9	9.9	6.4
Nov. Apr.	Glass Glover 5p	96	9.2	3.1	2.6	3.1	17.9
Jan. June	Hazlewood 20p	257	24.12	7.0	♦	4.0	♦
Feb. Sept.	Hillards 10p	270	9.2	‡4.25	3.6	2.2	[illegible]
Jan. July	Hinton (A.) 10p	176	1.6	6.0	2.6	4.9	(11.8)
November	Home Farm 10p	80	30.3	gd2.9	2.5	5.2	11.1
July Dec.	Kwik Save 10p	213	1.6	‡4.0	2.4	2.7	21.8
Dec. Aug.	Lennons Gp. 10p	56	24.12	‡2.23	2.8	5.7	(8.5)
Feb. Sept.	Linfood Hldgs.	141	26.1	11.0	1.8	11.1	(6.6)
December	Lockwoods	34#	8.12	0.1	—	0.4	—
May Nov.	Lovell (G.F.)	64	1.9	3.0	♦	6.7	♦
May Jan.	Low (Wm.) 20p	174	1.5	7.5	2.6	6.2	7.5
Jan. May	Matthews (B)	148	10.4	b4.38	4.5	4.5	5.3
Apr. Nov.	Meat Trade Sup.	90	2.3	d7.88	1.2	12.5	9.5
Nov. June	Morris'n(W.) 10p	172	10.4	h1.25	6.0	1.0	18.9
May	Needlers	63	16.3	d2.5	4.2	5.7	4.5
July Jan.	Nichols (Vimto)	220	30.3	9.33	3.0	6.1	7.9
Aug. Feb.	Northern Foods	161	12.1	‡h4.4	2.5	4.0	12.4
July Oct.	Nurdin P'k. 10p	143xc	29.6	h2.25	4.0	2.2	14.2
Dec. Aug.	Panto (P.) 10p	11	4.8	—	—	—	—
Feb. Aug.	Paterson (R.)	77	12.1	2.18	♦	4.1	♦
January	Pyke Hldgs. 10p	39	10.12	—	—	—	—
Jan. July	R.H.M.	50	1.6	3.65	1.9	10.4	(6.0)
Jan. June	Rowntree M. 50p	172	1.6	7.25	2.3	6.0	8.5
M J S D	Safeway Stores	£16	27.5	Q$2.60	—	8.4	—
Jan. June	Sainsbury (J.)	427	15.6	7.25	3.2	2.4	14.6
Jan. June	Single 10p	28	13.10	‡1.0	3.4	5.1	(22.0)
October	Somportex	920	1.9	5.63	10.7	0.9	15.3
Oct. Apr.	Squirrel H'n 12½p	38	30.3	1.56	2.1	7.4	(7.3)
Apr. July	Tate & Lyle £1	172	15.6	10.5	2.2	8.7	6.3
Jan. Apr.	Tavener Rut. 20p	24	3'78	—	—	—	—
Mar. Sept.	Tesco 5p	64½xd	29.6	2.55	q2.9	5.6	(6.7)
Apr. Oct.	Unigate	100	9.2	5.7	2.5	8.1	5.8
Jan. June	United Biscuits	127	18.5	4.37	2.2	4.9	(10.0)
Aug. Mar.	Watson Phlp. 10p	50	9.2	3.0	1.1	8.6	14.6

HOTELS AND CATERERS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Dec. July	Brent Walker 5p	54	10.11	1.75	♦	4.8	♦
Jan. Sept.	Comfort Int. 10p	23	24.12	0.6	3.5	3.8	8.3
Dec. June	De Vere Hotels	238	18.5	6.0	1.1	3.6	(28.0)
Apr. Oct.	Epicure 5p	33	2.3	‡d1.25	1.8	5.4	(12.0)
Apr. Oct.	Grand Met. 50p	214	9.2	‡6.63	2.7	4.5	9.4
—	‡‡Kennedy Br'kes 10p	187	—	d0.7	14.6	0.9	7.6
Mar. Oct.	Kursaal (M'r.) 25p	180	13.18	Q11.3%	2.5	3.6	11.3
May Oct.	Ladbroke 10p	161	10.4	h6.76	2.6	6.0	7.2
June	Mt. Charlotte 10p	22xr	12.5	0.7	2.0	4.6	(26.0)
Apr. Oct.	Norfolk Cap 5p	49	16.3	1.2	1.3	4.3	(24.1)
Dec. June	North (M. F.) 10p	25	1.5	0.8	1.3	4.6	21.6
July Oct.	Prince of Wales	70	15.6	2.75	♦	3.6	♦
July Oct.	Queen's Most 5p	36	10.4	1.1	2.9	4.4	12.3
—	Do. 10pc Cnv. 89-91	£134	18.5	Q10%	—	(8.2)	—
July Oct.	Rowton Hotels	125xd	29.6	7.0	1.7	8.0	10.5
Sept. Mar.	Ryan Hotels 5p	11	29.9	Q36.7%	2.1	12.9	4.5
May	Savoy "A" 10p	188	1.5	1.15	—	0.9	—
April Aug.	Stakis (Reo) 10p	49	2.3	‡1.4	3.3	4.1	8.8
Apr. Oct.	Trusthouse Forte	144	9.2	h6.0	2.1	6.0	9.5
Jan. Oct.	Warner Hcl. 'A' 10p	117	24.12	♦d2.25	3.6	2.7	12.7
Jan. Aug.	Wheeler's 10p	355	8.12	‡5.88	2.1	2.4	28.2

INDUSTRIALS (Miscel.)

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Feb. Sept.	AAA Inds.	43	24.11	2.13	—	7.0	—
Mar. Oct.	A.A.H.	187	16.3	‡8.5	3.2	6.5	6.6
—	AGA AB K50	£24½	5'80	14.95	♦	3.1	♦
Jan. Oct.	AGB Research 10p	227	26.1	b5.5	1.5	3.5	28.3
Oct. Apr.	Aaronson Bros. 10p	55	9.2	4.2	0.8	10.9	(21.7)
Mar. Oct.	Abbey Ltd.	42	26.1	Q22.5%	3.9	10.3	3.6
Jan. June	Advance Services 10p	60	1.6	3.0	2.1	7.1	7.7
October	Aero & General	410	11.8	g1.75	5.8	0.6	34.8
Oct. Apr.	Aero Needles	24	10.12	‡1.6	2.3	‡	(6.0)
July Dec.	Alpine Hldgs. 5p	72xd	29.6	5.25	♦	10.4	♦
Oct. May	Amal. Metal (£1)	245	1.5	9.0	4.1	5.2	5.8
Aug. Sept.	Amber Inds. 10p	29xd	29.6	2.5	0.8	12.3	(8.0)
—	Appld. Computer	124xd	29.6	0.5	♦	0.6	♦
Jan. Aug.	Arenson (A) 10p	42	15.6	1.93	5.5	6.6	3.8
November	Armour Trust 10p	8½	10.11	0.13	16.7	2.1	2.9
Apr. Oct.	Ashley Ind. Tst.	50	2.3	‡3.5	3.1	10.0	5.2
Mar. Oct.	Assocd. Comms 'A'	55	9.2	1.5	♦	3.9	♦
Feb. July	Ass. Sprayers 10p	24	15.6	d1.25	2.7	7.4	(5.5)
Jan. June	Astly & Haley 20p	108	1.5	5.0	2.7	6.6	7.2
Apr. Nov.	Austin F (Ley) 10p	13½	10.3	‡0.18	—	‡	—
July Jan.	Avon Rubber £1	117	24.12	‡5.0	—	‡	—
Jan. July	BBA Group	30	18.5	1.74	—	8.3	—
Oct. Apr.	B.E.T. Defd.	143	9.2	7.57	2.9	7.6	5.9
Apr. Oct.	BOC Intnl.	133	1.6	‡4.62	1.9	5.0	(12.7)
May Nov.	BTR	342	16.3	h7.17	2.2	3.0	17.4
Dec. July	Baird (Wm.) £1	215	1.6	12.95	2.4	8.6	5.4
—	Bardsey 10p	24	5'74	—	—	—	18.2
April	Barget	175	2'77	—	—	—	—
July Nov.	Barrow Hepburn	34	1.5	2.2	1.4	9.2	9.9
Aug. Mar.	Bath & Portland	54	15.6	2.0	2.5	5.3	8.9
July Jan.	Baxter Trav. US$1	£28⅛	9.6	Q76c	—	1.4	—
Dec. May	Beatson Clark	159	30.3	7.0	2.1	6.3	8.6
Feb. Aug.	Beecham	224	15.6	6.67	q1.7	4.2	(16.1)
Jan. July	Bellair Cos. 10p	10	10'75	—	—	—	—
Aug.	Benlox 10p	36	30.6	0.5	2.4	2.0	(28.8)
Sept. Apr.	Berisfords	67	2.3	3.8	1.4	8.1	(11.7)
Dec. May	Berwick Timpo.	69	27.10	6.0	2.0	13.2	4.6
Oct. May	Bestobell	462	10.4	g12.25	2.2	3.8	14.3
May Sept.	Bibby (J.) 50p	278	30.3	7.13	3.7	3.7	8.7
Oct. May	Biddle Hldgs.	125	1.5	d9.0	2.2	10.3	6.2
Oct. May	Bifurcated Eng.	32	10.4	1.5	0.7	6.7	—
Jan. July	Billam (J.) 10p	129	1.6	5.7	4.6	6.3	4.8
Jan. June	Black Arrow 50p	30	24.11	2.5	1.9	11.9	(5.0)
May Oct.	Black (P) Hldgs	150	2.3	‡4.25	4.2	4.0	7.7
Apr. Nov.	Blundell Perm.	96	9.2	4.8	1.6	7.3	12.7
July Nov.	Bodycote Int'l	66	1.5	4.0	1.5	8.7	9.4
May Oct.	Bogod Pel. 'A' 10p	18	16.3	‡1.18	3.1	‡	4.9
Jan. July	Booker McC.	56	18.5	3.13	2.1	8.0	6.9
May Nov.	Boot (Henry) 50p	200	18.5	13.0	1.6	9.3	(8.0)
Jan. July	Boots	222	1.6	7.5	2.6	4.8	10.6
FeMyAuNv	Borg-W. US$2.50	£26⅜	21.4	Q$2.48	—	4.9	—
July Nov.	Bowater £1	273	18.5	11.5	1.5	6.0	(14.2)
Jan. Aug.	Braby Leslie 10p	41xd	29.6	2.5	—	8.7	—
Jan. Oct.	Brady Inds. "A"	52	8.12	4.25	3.1	11.7	3.6
Oct. May	Brammer (H.) 20p	139	10.4	5.5	2.5	5.7	9.8
May Sept.	Brengreen 10p	52xr	8.12	0.7	3.3	1.9	18.2
April Dec.	Bridgend Proc. 5p	5	11'73	—	—	—	—
Nov. May	Bridon	75	10.4	3.5	1.8	6.7	9.9
May Nov.	Bridport-G 20p	22	8.12	‡2.41	1.5	‡	(5.4)
—	Brit. Aerospace 50p	237	—	b7.8	2.8	4.7	[illegible]
Feb. Sept.	BB & EA	74	24.12	‡3.5	5.3	‡	[illegible]
Aug.	Brit. Cine T. 12½p	60	16.6	2.1	♦	5.2	♦
Jan. June	Brit. Syphon 20p	42	1.6	2.6	2.7	8.8	(4.8)
May Nov.	British Vita	176	16.3	5.2	3.2	4.2	[illegible]
Nov. May	B. H. Prop. $A2	910	1.5	Q40c	♦	2.5	♦
Jan. July	Brook St. Br. 10p	51	15.6	2.14	3.4	6.0	[illegible]
Nov. June	Brooks Wat. 20p	18	1.5	Q7.1%	—	6.1	—
Dec. July	Brown Bov. Kent	23	12.5	—	—	—	—
Oct. Mar.	Bruntons (Muss)	117	10.4	9.46	1.4	11.6	[illegible]
Feb. Aug.	Burco Dean	33	15.6	20.1	—	0.4	—
Apr. Dec.	Burndene 15p	7½	24.3	‡0.25	—	‡	—
May Nov.	Burns Ands'n 10p	25	29.9	2.0	2.0	11.2	[illegible]
June Feb.	C. H. Ind'ls. 10p	30	24.12	2.42	2.8	11.5	[illegible]
July Dec	CSR A$1	368	28.11	Q18c	♦	2.8	♦
May Nov.	Camrex 20p	40	2.6	—	—	—	—
Dec. July	Canning (W.)	70	1.5	3.98	2.3	8.1	[illegible]
May Nov.	Cape Industries	206	10.4	11.2	1.6	7.8	[illegible]
Mar. Sept.	Caravans Int. 20p	24	26.1	0.1	—	0.6	—
May Oct.	Carlton Inds.	235	30.3	♦12.0	2.2	7.3	(7.1)
October	Cawdaw Ind.	22	30.7	—	—	—	—
Feb. Aug.	Cawoods	220	8.12	‡3.5	4.8	2.3	[illegible]
September	Celestion 20p	25	14.7	1.0	—	5.7	—
Dec. July	Cent. Sheerwd. 5p	20	19.5	1.05	—	7.5	—
Sept. Feb.	Centreway 50p	133	9.2	‡10.0	4.4	‡	[illegible]
Jan. Aug.	Chamb'lan Ph. 10p	43	8.12	3.1	♦	10.8	♦
Mar. Aug.	Change Wares 20p	44	8.10	—	—	—	—
J.A.J.N.	China Light HK$5.00	135	2.3	Q50c	2.2	3.4	[illegible]
Apr. Oct.	Christie-T. 10p	45	9.2	‡6.5	—	‡	—
Nov. May	Christies Int. 10p	232	11.10	7.0	2.3	4.8	[illegible]
Dec. Aug.	Chubb 20p	87xd	29.6	5.43	♦	8.9	♦
Feb. June	Clarke (Clement)	118	1.5	2.67	4.7	3.2	[illegible]
June Dec.	Cole (R.H.)	69	18.5	2.0	—	4.1	—
—	‡Consultants 10p	118	—	—	—	—	—
Mr.Je.S.D.	Cont'l. Grp. $1	£18½	13.2	Q$2.40	—	6.7	—
Apr. July	Cost. Station'y 10p	32xd	29.6	2.15	1.9	9.6	[illegible]
Jan. June	Cope Allman 5p	43	24.11	‡4.58	3.6	‡	[illegible]
Aug. Oct.	Copydex 10p	38	18.5	1.0	♦	3.8	♦
Jan. July	Cosalt	29	1.5	3.5	0.3	17.2	—
May Dec.	Courtney Pope 20p	39	30.3	2.4	3.1	8.8	[illegible]
Mar. Oct.	Cowan de Grt. 10p	49	9.2	hd3.5	3.2	10.2	[illegible]
July Jan.	Crean (J.)	105	1.5	Q39%	3.1	7.2	[illegible]
Apr. Nov.	Crest Nichol 10p	169	2.3	‡4.6	3.9	3.9	[illegible]
Feb. Aug.	Crosby House £1	165	10.77	—	—	—	—
Jan.	Crosby W'd'ld 10p	8½	16.6	0.05	—	0.8	—
May Nov.	Dalgety £1	302	18.5	22.0	1.0	10.4	[illegible]
Jan. July	Davies & N'wmn.	132	15.6	9.24	2.5	10.0	[illegible]
Dec. Aug.	De La Rue	740	15.6	21.0	q2.7	4.1	[illegible]
Apr. Aug.	Denbyware	123	9.2	♦‡4.11	1.2	‡	[illegible]
May Nov.	Dectaply 9pc Cv. '91-96	£68	1.5	Q9%	23.8	13.5	—
Feb. Sept.	Diamond St. 10p	13	28.7	‡0.89	4.3	‡	[illegible]
Jan. June	Dinkie Heel 5p	12	1.5	0.5	1.6	6.0	[illegible]
Apr. Sept.	Diploma 10p	198	16.3	♦h3.8	3.1	2.7	[illegible]
Sept. Mar.	Dobson Park 10p	95½	12.1	5.21	2.6	8.0	[illegible]
Jan. July	Dom Hldgs. 10p	59	26.1	‡d5.7	1.4	‡	[illegible]
MaJuSeDe	Dover Corp. US$1	£29	26.5	Q$1.04	—	1.9	—
Jan. May	Dowds Sorg'l. 10p	26	1.9	0.6	1.2	3.4	[illegible]
May Oct.	Dufay Bitum. 10p	40	10.4	2.0	0.1	7.1	—
June Feb.	Dundonian 20p	75xd	29.6	3.5	♦	6.7	♦
Jan. June	Dunhill (Alfred)	287	15.6	10.0	♦	6.9	♦
Jan. July	Duple Int.	42xd	29.6	‡5.8	1.3	‡	[illegible]
June Dec.	Duport	11½	25.2	♦—	—	—	—
Aug. Apr.	Durapipe	24	30.6	‡2.6	2.2	‡	[illegible]
Jun. Dec.	Dwek Group 10p	7½	16.6	—	—	—	—
Apr. Oct.	Dyson (J. & J.)	42	9.2	‡5.0	1.0	‡	[illegible]
Apr. Oct.	Do. 'A'	22	9.2	‡5.0	1.0	‡	[illegible]
Jan. July	EIS	142	13.5	4.15	3.3	3.6	[illegible]
July Dec.	Eastern Prod. 50p	73	8.12	♦4.62	2.7	9.0	[illegible]
July Nov.	Elbar Inds. 50p	165	18.5	g2.0	—	1.7	—
Apr. Oct.	Elbief 10p	13½	2.3	d1.3	1.0	13.8	[illegible]
May Jan.	Eleco 10p	71	10.4	d3.3	2.5	6.6	[illegible]
June	Electrolux B Kr50	£11	18.5	Q15%	2.1	6.7	[illegible]
July Jan.	Elliott P'b'ro. 10p	29	30.6	0.25	—	1.2	—
Jan. June	Elson & Robbins	22	24.12	‡5.0	1.6	‡	[illegible]
Jan. June	Elswick H'per 5p	12xd	29.6	1.15	♦	13.7	♦
Mr Jn Se De	Emhart Corp. $1	£17	3.6	Q$2.40	—	7.3	—
—	Emray 5p	13	—	—	—	—	—
July April	Eng. China Clays	125xd	29.6	‡6.2	2.7	7.1	[illegible]
Feb. Aug.	Erskine House	43	1.9	‡2.18	0.4	‡	—
Mar. Nov.	Esperanza 12½p	138	9.2	6.7	1.3	6.9	[illegible]
Sept.	Esselte AB K50	£15½	—	Q16%	♦	4.9	♦
Jan. June	Euro Ferries	85	18.5	‡3.1	3.3	5.2	[illegible]
—	♦Euroflame	54	—	b2.1	2.5	5.6	[illegible]
Mar. Sept.	Evode Hldgs. 20p	73	9.2	1.68	4.8	3.3	[illegible]
Jan. Jul.	Extel	202	15.6	‡8.0	2.2	5.8	[illegible]
Jan. June	Feedex Agric. 10p	36	18.5	1.1	1.9	4.4	[illegible]
Aug. Jan.	Fenner (J. H.)	153	8.12	9.0	2.0	8.6	[illegible]
Jan. July	Ferguson Ind.	82xd	29.6	5.5	♦	9.6	♦
May Nov.	Findlay Hardware	21	26.4	—	—	—	—
Apr. Dec.	Fitzwilton	41½	16.3	Q31.4%	8.9	14.6	[illegible]
—	Fletcher Chlnge NZ$15	105	10.4	Z03.5c	—	1.4	—
July Jan.	Flexello C. & W.	34	30.6	‡1.41	—	‡	—
Dec. June	Fobel Int. 10p	22	24.12	‡2.14	1.6	13.9	[illegible]
Nov. June	Fogarty (E.) 30p	95	1.5	4.02	1.3	6.0	[illegible]
—	Do. Defd.	95	—	—	—	—	—
Dec. July	Foseco Minsep	250	13.5	6.6	2.4	3.8	[illegible]
Jan. May	FothergillHarvey	142	1.5	g7.75	1.7	7.8	[illegible]
Dec. June	Francis Inds.	80	18.5	‡5.0	1.8	8.9	[illegible]
Feb. Aug.	French Thos. 10p	124	9.2	‡5.0	3.6	5.9	[illegible]
May Nov.	Friedland Dgt	91	30.3	4.72	2.0	7.7	[illegible]
July Jan.	G.R. (Hdgs)	197	18.5	6.8	5.2	4.9	[illegible]
Apr. Sept.	Gestetner 'A'	83	9.2	5.25	2.6	9.0	[illegible]
July Dec.	Gieves Grp. 20p	33	—	—	—	—	—
Apr. Oct.	Glaxo 50p	388	1.5	‡9.5	2.2	3.5	[illegible]
Jan. July	Gomme Hlds.	33	12.5	‡0.89	10.8	‡	[illegible]
Mar. Nov.	Grampian Hdgs.	69	10.4	4.5	1.9	9.3	[illegible]
Apr. Oct.	Granada 'A'	238	8.12	‡4.35	3.8	2.6	[illegible]
October	Grimshawe 20p	30	15.5	3.0	2.6	14.3	[illegible]
April Oct.	Gripperrods 10p	147	2.3	5.25	5.5	5.1	[illegible]
Oct. June	Grovebell Gp. 5p	7	18.9	8—	—	—	—
Jan. Aug.	Hallam Sleigh 10p	12	2'79	—	—	—	—
Feb. Aug.	Halma 10p	106xd	29.6	1.62	♦	2.2	[illegible]
Dec. Apr.	Hammer Cp. 25c	73	30.3	‡Q9c	4.2	7.8	[illegible]
Feb. July	Hanson Trust	292	15.6	‡8.5	2.2	4.2	[illegible]
Mar. Sept.	Do 6½pc Cnv 88-93	£163	24.3	Q6½%	28.5	(4.1)	—
Jan. July	Hargreaves 20p	46xd	29.6	2.75	0.9	8.5	[illegible]
Jan. Aug.	Harris (Ph.) 20p	70	12.1	5.5	1.6	11.2	[illegible]
May Nov.	Harris & Sheldon	32#	30.3	3.0	1.8	13.4	[illegible]
—	Harvey & Thompson 2p	59	—	‡2.24	1.1	6.4	[illegible]
July Feb.	Hawkins & Tipson	22	24.12	1.0	1.7	6.5	[illegible]
July	Hawtin 5p	8¼	18.5	0.25	1.9	4.1	[illegible]
Dec. June	Hay (Norman) 10p	64	18.5	3.1	1.3	6.9	[illegible]
Jan. June	Hepworth Cmac.	116	18.5	5.25	1.7	6.4	[illegible]
Mar. Sept.	Hestair	44	18.5	2.0	2.8	3.2	[illegible]
May	Hewitt (J.)	56	30.3	1.8	8.8	4.6	[illegible]
Dec. July	Highgate & Job 50p	40	26.4	—	—	—	—

INDUSTRIALS—Continued

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
	Hill (Chas.) £1	122	21.5	φ	—	—	—
	Hirst Mal'son 20p	32	23	φ0.1	—	0.4	—
	Holden (A.)	180	8.12	5.0	φ	7.4	φ
	Hollis Bros.	38	1279	‡1.4	—	—	—
	Holt Lloyd Int. 10p	65	18.5	3.37	1.9	7.0	12.4
	Hoskins & H 20p	127	23	4.0	—	6.8	—
	Howard Tenens	74	18.5	2.0	—	3.9	—
	Hunting Assoc.	64	8.12	‡2.28	2.8	‡	11.8
	Huntleigh 10p	344	15.6	5.0	5.8	2.1	8.7
	Hutch Whamp $HK1	118	15	1.5	3.8	1.8	14.7
	Hyman (I. & J.) 5p	205	12.5	Q32c	φ	1.4	φ
	I.C. Industries $1	73	15	0.83	3.9	9.1	3.2
	ICL	£19⅛	9.6	Q$2.20	—	6.0	—
	Ingall Inds. 10p	32	24.12	$2.97	—	‡	—
	Initial Services	39	15	t2.5	1.6	9.2	10.8
	Inter-City 20p	219	24.12	7.5	2.3	4.9	10.8
	J. B. Holdings 10p	16½	1179	—	—	—	—
	Jacksons Bourne	71½	1.4	3.0	4.9	6.0	4.6
	James (M.) Ind. 10p	185	24.12	5.0	φ	3.9	φ
	Jardine M. $HK5	223xd	29.6	1.0	φ	6.3	φ
	Jentique	234	25.4	Q8.8c	2.8	3.5	14.5
	Johnson & Barnes	19	16.3	‡1.03	—	4.7	—
	Johnson Clnrs.	7#	1175	—	—	—	—
	Johnson Mthy. £1	238	30.3	7.0	3.8	4.2	7.8
	Jourdan (T.) 10p	250xd	29.6	9.5	φ2.3	5.4	(9.5)
	Kalamazoo 10p	87	16.3	5.25	1.8	8.6	6.0
	Kelsey Inds.	66	15	‡3.75	1.8	‡	10.8
	Kennedy Sm. 10p	139	1.6	48.0	4.7	8.2	3.7
	Kershaw (A.) 5p	135	9.2	13.5	3.4	3.7	9.6
	Kleen-E-Ze Hldgs.	310	23	21.75	0.6	10.0	(29.6)
	L.C.P. Hlds.	68	24.12	5.5	φ	12.3	φ
	L.K. Ind'l. Invs.	65xd	29.6	4.3	φ	9.4	φ
	L.R.C. Int. 10p	29	1179	—	—	—	—
	Latex	45	9.2	‡2.45	1.8	7.8	(8.5)
	Lead Inds. 50p	46	30.3	‡4.0	1.8	‡	(22)
	Leigh Interests	163	15	9.66	1.2	8.5	13.6
	Leisure & General	80	15	3.5	2.8	6.2	7.4
	Lep Group 10p	378	24.12	‡16.5	2.5	7.1	7.0
	Lesney Prods. 5p	22	1179	B—	—	—	—
	Letraset 10p	86	26.1	‡7.14	1.3	11.9	8.9
	Lindustries 10p	44	1.5	3.5	2.7	11.4	(3.7)
	Lond. & Liv. 10p	31	8.12	1.7	—	8.1	φ
	London & Mid'd	121	8.12	7.75	2.8	9.2	7.1
	Lon. & Nthn. Grp.	40½	1.4	3.75	2.5	13.2	3.5
	Long Hambly 10p	7¼	1279	—	—	—	—
	Longton Inds.	48	15.9	‡5.0	1.7	‡	(4.9)
	Lonsdale Univsl.	38	30.6	1.85	2.9	7.0	6.3
	Lotus? Cochrane	20#	—	‡0.36	1.3	24.0	4.7
	Low & Bonar 50p	188	10.4	14.5	1.6	11.0	(7.4)
	M.Y. Dart. 10p	39	18.5	2.9	1.8	10.6	(8.3)
	McKechnie Ph. 20p	144	9.2	6.5	3.0	6.4	5.7
	Macfarlane Gp.	72	10.4	3.7	1.9	7.3	8.9
	MacLellan 20p	30	18.5	1.43	1.7	6.8	(8.7)
	Macpherson (D.)	62	23	4.2	0.8	9.7	18.0
	Magnolia Group	55	18.4	2.1	4.5	5.5	4.4
	Man. Ship Can. £1	158	1.9	7.5	—	7.1	—
	Manders	40	9.2	2.25	1.6	8.2	(9.3)
	Marling Ind. 10p	20	24.12	0.89	3.5	6.4	5.8
	Marshall L'ky. 'A'	34	1.9	2.78	4.0	11.7	3.0
	Marshall's Univ	82	1.6	0.1	—	0.2	—
	Martin-Black	25	5.79	—	—	—	—
	Matthews 7¼pc	£160	30.6	Q7¼%	2.3	F4.8	—
	Maynards	200	16.3	8.75	2.5	6.2	(7.3)
	Metal Box £1	178	15.6	10.71	1.0	8.6	(8.5)
	Metal Closures	109	30.3	5.4	2.5	7.1	6.6
	Mettoy	20	18.5	0.1	—	0.7	—
	Do. Defd.	18	—	—	—	—	—
	Moben Grp. 10p	25	1279	—	—	—	—
	M'santo 5pc 82-6	£155	14.7	Q5%	—	f3.3	6.2
	Morgan Crucible	126	1.6	7.5	1.6	8.5	8.8
	Moss (Robt.) 10p	20	14.7	‡1.6	1.8	‡	6.8
	Myson Gp. 10p	64	15.9	φ1.0	—	‡	—
	Nash (J. F.) Secs.	46	26.1	φ6.5	1.0	‡	7.1
	Nathan (B. & I.)	34	12.5	—	—	—	—
	N.C.R. 4% 93/98	£41	10.3	Q4%	φ	f9.9	—
	Neil&Sp'ncer 10p	34½	16.3	2.1	—	8.7	—
	New Equip. 10p	27	29.9	1.05	4.5	5.7	5.0
	Nolton	35	16.3	43.3	1.2	13.5	(8.0)
	Norcros	185½	24.12	5.52	φ2.3	7.7	6.8
	Norvic Secs. 10p	7#	24.3	—	—	—	—
	Nu-Swift 5p	26½	16.3	2.05	1.6	11.0	7.9
	Oakwood Grp.	132	24.12	ψ6.5	3.4	7.0	5.2
	Office & Elect.	385	18.5	7.0	3.5	2.6	14.8
	Ofrex 20p	95	18.4	3.67	2.4	5.5	(8.7)
	Ovenstone 12½c	16	18.5	Q3c	2.3	10.7	4.1
	Ozalid Fin. Cv.	£73½	18.4	Q9%	—	f12.4	—
	P.M.A. (Holdings)	22	1179	φ‡1.25	—	—	—
	Parker Knoll 'A'	127	16.3	7.0	4.1	7.9	4.4
	Pauls & Whites	148xd	29.6	6.5	φ	6.3	φ
	Peerless	93	26.1	‡6.3	2.0	9.7	6.2
	Pentland 10p	55	18.5	1.65	4.5	4.3	5.7
	Pentos 10p	21	15.9	d1.4	—	9.5	—
	Do. Defd. 20p	26	—	—	—	—	—
	Petrocon 12½p	46	1879	—	—	—	—
	Phillips Patents	17	11.8	d1.0	0.2	8.4	—
	Photo-Me 50p	357	27.10	9.85	4.1	3.8	9.2
	Pilkington Br. £1	327xd	29.6	10.5	φ2.1	4.6	12.2
	Pitn'y Bowes La.	£71½	18.5	Q5½%	—	f7.9	—
	Plastic Const. 10p	37	23	‡2.67	2.2	10.3	7.0
	Platignum 5p	8½	18.5	0.01	—	—	—
	Polymark 10p	180	23	3.7	—	5.4	φ
	Portals	505	10.4	12.25	3.3	3.5	9.5
	Powell Duff. 50p	270	24.11	14.25	φ	7.8	φ
	Press (Wm.) Grp. 10p	79	—	‡2.76	2.4	5.1	9.8
	Prestige Group	142	9.2	6.88	2.4	6.9	7.4
	Pritchard Svs. 5p	159	18.5	3.5	2.2	3.1	18.2
	R.F.D. Group 10p	46	12.1	2.8	1.2	8.7	13.0
	Radiant Mtl. 12½p	64	24.12	3.0	3.2	6.7	6.6
	Rank Org.	182	9.2	10.8	2.2	8.5	6.7
	Reckitt & Colman	264	18.5	8.5	2.8	4.6	(11.2)
	Redfearn Glass	150	15.6	‡10.56	—	—	—
	Reed Exec 10p	42	27.10	1.5	1.6	5.1	(26.0)
	Reed Intl. £1	252	15.6	13.0	3.8	7.4	(24.0)
	Relyon PBWS	113	30.3	4.8	2.4	6.1	7.9
	Renown Inc. Y50	190	31.3	Q20%	—	0.5	—
	Renwick Group	84	11.8	‡3.5	3.3	‡	5.6
	Restmor	86	26.1	4.0	4.3	6.6	4.2
	Rexmore	23½	11.8	b1.0	—	6.2	—
	Ricardo	588	30.3	‡8.5	3.8	2.4	13.4
	Riley (E. J.) 10p	77	1.4	3.5	1.5	6.5	14.1
	Rocke Plant 10p	28	23	1.2	8.2	6.1	—
	Rock Darham 10p	17	2.6	—	—	—	—
	Rockware	60	10.4	2.1	5.1	5.0	4.2
	Rolfe & Nolan 10p	54	—	1.5	—	4.1	φ
	Ropner Hldgs.	200	10.11	‡4.5	3.5	3.2	12.7
	Do. 'A'	195	10.11	‡4.5	3.5	3.3	12.3
	Rotaprint 20p	16	1279	—	—	—	7.0
	Rowan & Boden	36	1.5	2.21	3.8	8.8	(4.2)
	Royal Worcs.	268	18.4	8.6	3.5	4.6	7.4
	Russell (A.) 10p	265	24.12	‡2.0	5.5	1.1	20.1
	Ryan (L.) 5p	13	176	—	—	—	11.4
	St. George's Ly. 10p	97½	18.5	3.0	2.9	4.4	(8.9)
	St. Gobain Frs.100	£10xd	29.6	Q18.9%	φ	16.1	φ
	Sale Tilney	208	30.9	7.5	3.5	5.2	6.1
	Sandhurst Mkt. 10p	55	18.5	1.93	2.4	5.0	9.7
	Sangers Grp.	70	8.12	1.8	φ	3.7	φ
	Scapa Group	134xd	29.6	6.55	4.3	7.0	φ
	Schlumberger $1	£48⅝	11.3	Q$1.25	—	1.3	—
	Scotcros	134	15.6	5.52	2.4	5.9	(8.1)
	Scot. Heritable	34	1.6	2.5	1.5	10.5	(8.1)
	Sears Hldgs.	54½	27.10	2.3	1.9	6.2	10.0
	Securicor Gp.	170	2.3	1.61	8.7	1.4	10.9
	Do. 'A' N-V	162	2.3	1.61	8.7	1.4	10.4
	Security Services	167	2.3	2.71	3.4	2.3	15.1
	Do. 'A' N-V	157	2.3	2.71	3.4	2.3	15.0
	Sharna Ware 20p	137	18.4	3.47	3.6	3.6	7.9
	Sidlaw Inds 50p	170	15.6	‡3.0	—	2.5	—
	Siebe Gorman	159	9.2	7.26	3.0	6.5	6.4
	Silentnight 10p	85	1.5	3.5	2.4	5.9	8.6
	Silv'rthorne 10p	28	18.5	1.5	3.4	7.7	5.5
	Simpson (S.) 'A'	80	18.11	‡4.26	2.2	‡	7.9
	Sketchley	262	15.6	9.0	2.2	4.9	13.3
	Smith&Neph. 10p	102	30.3	hd3.47	2.9	4.9	(2.5)
	Smiths Inds. 50p	386	1.5	‡10.0	4.2	3.7	10.4
	Solic. Law 20p	26	14.4	—	—	—	—
	Sonic	20	30.6	1.0	φ	7.5	φ
	Sotheby P.B.	485	24.12	12.5	2.9	3.7	12.9
	Sparrow (G.W.) 20p	85	15.6	2.0	2.9	3.4	(11.0)
	Spear (J.W.)	115	27.10	t6.0	3.6	7.5	4.7
	Spring Grove	97	1.6	4.0	2.5	5.9	7.6
	Staffs. Potts	45	10.3	‡1.13	3.5	‡	8.7
	Stag Furniture	95	10.4	5.0	2.8	7.5	7.9
	Std. Fireworks	135	28.7	7.5	φ	8.4	φ
	Standard Ind.	64	10.4	1.85	3.3	4.1	8.0
	Steetley	203	30.3	10.5	1.7	7.4	(9.4)
	Stelux Mnfl. HK$1	72	6.77	NQ40c	—	4.7	—
	Sterling Inds. 2½p	33xd	29.6	1.65	0.8	7.1	(27.0)
	Stocklake	132	16.3	‡4.0	8.4	4.3	2.9
	Stonehill Hlds.	112xd	29.6	8.5	φ	10.8	φ
	Sumner (F.) 10p	9½	12.5	N0.3	0.2	4.5	—
	Sunlight Serv. 10p	105	1.5	2.5	4.8	3.4	8.6
	Sutcliffe Speak.	46	21	—	—	—	—
	Swedish Match K50	£12½	18.5	Q14%	1.4	5.5	13.5
	Swire Pac. A 60c	177	9.5	Q60c	φ	3.2	φ
	Sytone	153	23	td9.0	2.8	8.4	5.1
	Talbex 5p	4½	1079	—	—	—	—
	TSL Th'mal Synd	108	23	47.0	2.2	9.5	5.8
	Th. Times Vn. 5p	9	16.6	—	—	—	—
	Third Mile Inv.	38	15.4	1.58	φ	5.9	φ
	TNT A$0.50	161	15.6	‡Q12c	3.7	4.3	6.4
	Tilling T. 20p	191	18.5	7.5	2.1	5.6	(9.8)
	Toothill R.W	50	779	—	—	—	—
	Toye	60	1.4	1.63	—	3.9	—
	Trafalgar H. 20p	182	18.5	‡5.85	2.1	8.2	8.0
	Transport Dev.	73	16.3	4.25	2.1	8.3	6.9
	Triefus	66	15.6	2.88	3.1	6.2	(5.8)
	Turner & New. £1	88	18.5	6.0	—	9.7	—
	UKO Intl.	65xd	29.6	5.0	1.2	11.0	(9.9)
	Unilever	590	10.4	22.91	2.6	5.5	7.9
	Uni'v N.V. FL12	£17⅛	18.5	Q35.6%	2.8	7.1	5.8
	Utd. Carriers 10p	140	1.5	3.5	3.6	3.1	11.1
	United Gas Inds.	60	24.12	‡4.9	2.2	11.7	(4.6)
	U. Guarantee 5p	12	2.3	0.5	—	‡	—
	Unochrome 10p	14	18.5	0.65	5.9	6.6	3.4
	Valor	67	24.11	2.66	φ	5.9	φ
	Viners 10p	15#	5.79	—	—	—	—
	Vinten Grp. 20p	284	9.2	2.8	3.4	1.4	29.6
	"W" Ribbons 10p	12	1279	—	—	—	—
	W.G.I.	88	24.12	6.0	0.3	10.1	—
	Wade Potts. 10p	45	1.5	2.0	4.1	6.4	5.1
	Walker Hmr. 5p	8½	1179	—	—	—	—
	Ward (T. W.)	120	15.6	‡7.2	2.5	8.6	6.4
	Waterford 5p	23	30.3	Q5.5%	1.9	5.9	18.3
	Watshams	400	2.3	9.2	2.2	3.3	15.9
	Watson R. K. 10p	67	24.12	td3.3	3.5	7.0	5.3
	Wedgwood	91xd	29.6	3.3	φ	5.2	φ
	Westn. Board 10p	132	26.1	5.3	2.4	5.7	10.3
	W'lock M. A HK$1	79½	17.1	hQ22.1c	φ	2.6	φ
	Whatman R Angel	170	1.5	3.5	2.6	2.9	(26.0)
	Whitecroft	54xd	29.6	3.85	φ	10.2	φ
	Wilkes (J.)	80	18.4	4.13	1.5	7.4	(11.5)
	Wilkins Mitchell	22	12.5	—	—	—	—
	Williams (J.)	25	18.5	‡2.85	—	‡	—
	Wills (George)	88	1.6	4.5	2.6	8.0	5.7
	Witter (Thomas)	53	11.8	44.03	2.4	10.9	5.6
	W'mpn Sin. Ln 5p	49	30.6	0.75	φ	2.2	φ
	Wood & Sons 5p	13	1279	‡0.7	—	‡	—
	Wood (Arthur) 5p	21	1.5	1.0	4.4	6.8	4.1
	Wood Hall	144	10.11	6.21	1.6	6.2	(12.2)

INSURANCE

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
July	Brentnall Bd. 10p	24	7.79	—	—	—	—
Sept.	Britannic 5p	290	30.3	13.9	—	6.8	—
M.A.N.	Combined Int. $1	£18⅝	3.2	Q$1.60	—	7.7	—
May	Comm. Union	177	30.3	10.8	—	8.7	—
July	Eagle Star	326	1.6	‡15.0	—	6.6	—
	Edin. Gen. Ins. 10p	27#	—	‡1.0	—	6.0	—
Dec.	Emis UK 9% Cnv.	£120	18.5	Q9%	—	f7.6	—
July	Equity & Law 5p	398	18.5	13.0	—	4.7	—
July	Gen. Accident	344	18.5	13.5	—	5.6	—
May	G.R.E.	344	18.4	15.5	—	6.4	—
Dec.	Hambro Life 5p	404	1.5	d9.6	—	3.4	—
July	Heath (C.E.) 20p	287	1.6	10.5	2.3	5.2	9.8
Mar.	Hogg Robinson	109	26.1	5.7	2.2	7.5	8.6
Apr.	Howden (A.) 10p	126	30.3	7.0	1.7	7.9	9.6
	Do. Warrants	£56	—	—	—	—	—
June	Legal & General	236	10.4	9.0	—	5.4	—
April	Liberty Life SA R1	£10¼	—	Q120c	—	6.7	—
May	Lon. & Man. 5p	262	18.4	10.5	—	5.7	—
Oct.	London United 20p	200	1.5	9.0	2.0	6.4	11.2
M.A.N.	Marsh McLen'n $1	£20¼	30.3	Q$2.00	—	5.1	—
June	Minet Hldgs. 20p	137	18.5	4.55	1.8	4.7	16.7
Aug.	Moran (Chris) 20p	213#	30.6	4.0	1.2	27.2	4.4
June	Pearl 5p	426	1.5	20.0	—	6.7	—
June	Phoenix	294	18.5	14.9	—	7.2	—
July	Provident	220	1.5	11.4	—	7.4	—

INSURANCE—Continued

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Nov. May	Prudential	234	10.4	11.0	—	6.7	—
Nov. May	Refuge 5p	260	30.3	12.3	—	6.8	—
Jan. May	Royal	392	10.4	24.0	—	8.7	—
Feb. Oct.	Sedgwick 10p	143	16.3	5.0	2.0	5.0	14.1
Apr. Sept.	Stenhouse	94	30.3	4.65	1.8	7.1	9.9
Nov. July	Stewart Wr. 20p	222	18.5	12.0	1.3	7.7	12.9
Jan. July	Sun Alliance £1	929	18.5	33.0	—	5.1	—
June Dec.	Sun Life 5p	296	1.5	g9.0	—	4.3	—
April	Taisho Mar. EDR	706	25.3	Q10%	—	0.2	—
Nov. May	Trade Indemnity	195	10.4	6.34	—	4.6	—
Ma.Ju.Se.De.	Travelers $2.50	£24⅝	27.4	Q$2.88	—	6.0	—
Dec. June	Willis Faber	365	1.5	12.0	2.0	4.7	15.3

LEISURE

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
May Aug.	Anglia TV 'A'	84xd	29.6	‡5.0	4.6	8.5	2.9
Sept. Feb.	Assoc. Leisure 5p	116	8.12	5.1	2.4	6.3	8.1
Dec. June	Barr & W.A.T. 'A'	79	18.5	3.0	—	5.4	—
Jan. July	Black Edgtn. 50p	62	18.5	1.0	—	2.3	—
May Nov.	Boosey & Hawkes	173	18.5	5.67	—	4.7	—
Mar. Nov.	Campari Int. 20p	47	16.3	‡4.0	1.7	‡	(6.0)
Feb. June	Fairline Boats 10p	47	15.6	‡d3.5	1.2	‡	11.7
February	Glasgow Pavilion 10p	37	377	—	—	—	—
Jan. June	Grampian TVA 10p	40	18.5	2.75	2.4	9.8	6.0
May Oct.	HTV Non/Vtg.	74	16.3	10.0	2.2	19.3	3.6
June Dec.	Hawley Leisure	81	10.4	‡2.67	2.9	4.7	(10.5)
May Oct.	Horizon	267	30.3	‡5.0	5.1	2.7	14.7
—	‡Intasun 10p	75	—	g2.8	4.3	5.3	5.5
—	‡‡Intervision 10p	48	—	—	—	—	—
January	Lacaster (D. M.) 5p	22	—	0.41	2.2	2.7	16.2
Dec. Apr.	LWT "A"	99	10.4	10.07	1.8	14.5	(4.7)
June Jan.	Magnt. Ag. M. 10p	164	1.6	8.75	2.8	7.6	5.3
Apr. Dec.	Westminster 10p	60	23	‡2.7	3.9	6.4	5.4
—	‡‡Nationwide 5p	10	—	—	—	—	75.1
Jan. Sept.	Norton & Wrt. 10p	48	1.9	‡d4.47	2.2	‡	4.8
Jan. July	Old Swan (Hyams) 10p	69	1.6	g0.8	φ	1.7	φ
—	‡‡Pan Atlas 20p	9½	—	—	—	—	16.1
Jan. June	Photax (Lon.)	49	1.6	3.5	4.0	10.2	3.0
Sept. Apr.	Pleasurama 5p	325	9.2	‡6.5	5.2	2.9	9.6
Jan July	Redif. TV Pref. £1	59½	30.6	5.95	24.2	14.3	—
Apr. Nov.	Saga Hols. 20p	350	30.3	‡9.0	3.1	3.7	9.7
May Dec.	Samuelson 20p	285	9.2	d8.77	0.3	4.4	—
Dec May	Scott. TV 'A' 10p	74	10.4	5.95	3.3	11.5	3.8
—	‡‡Tom Hill	6½	—	—	—	—	6.6
Oct. Apr.	Trid'nt TV 'A' 10p	54½	23	4.0	1.6	10.7	8.4
April Sept.	Webb (Jos.) 5p	31½	28.8	‡d0.51	3.5	2.4	13.4
Dec June	Westward TV 10p	23½	12.1	‡1.5	3.1	9.5	4.9
Apr. Nov.	Zetters 5p	104½	23	‡2.5	4.3	3.4	9.7

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
—	B.L. 50p	17	—	—	—	—	—
Mr.Je.S.D.	Gen. Mts. Units	137	11.5	Q12c	—	4.5	—
—	‡Hesketh Motor 50p	50	—	—	—	—	—
—	Lotus Car 10p	34	28.8	—	—	—	8.5
—	‡Reliant Motor 5p	6½	—	—	—	—	—
	Volvo Kr50	£12⅛	27.5	Q16%	5.4	6.3	2.9

Commercial Vehicles

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Feb. Aug.	E.R.F. (Hldgs.)	40xd	29.6	0.1	—	0.4	—
Jan. May	Plaxtons (GB)	128	1.6	8.5	4.4	9.5	2.4
July Oct.	York Trailer 10p	14#	12.5	B—	—	—	—

Components

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
July Jan.	A.E.	43	—	12.1	—	—	—
Mar. Sept.	Abbey Panels	70	2.9	d2.05	8.1	4.2	4.2
Feb. July	Airflow Stream	16	10.11	0.1	—	0.9	—
May Nov.	Armst'ng Eq. 10p	43	10.4	hd2.73	3.7	‡	3.2
	For Assoc. Eng'g See A.E.						
Jan. Sept.	Automotive	63	18.5	3.02	—	6.8	—
Aug. Mar.	Bluemel Bros.	30	24.12	‡3.3	1.7	‡	4.7
Jn. Oc. Dc.	Brown Bros. 10p	21½	10.11	‡2.1	3.1	‡	(2.5)
Mr Jn Sp Dc	Dana Corp $1	£15⅝	28.5	Q$1.60	—	5.2	—
—	‡‡Delight	25	—	‡d3.0	2.4	‡	3.0
Apr. Sept.	Dowty 50p	233	23	‡4.5	4.1	2.2	12.0
Jan. July	Dunlop 50p	84	18.5	4.0	—	6.8	—
Jan. July	Flight Refuelling	375	1.5	N3.75	φ	1.4	φ
Jan. June	Hmm. Smith 10p	22	18.5	‡h0.37	8.7	2.4	6.9
Mar. Sept.	Kwik-Fit Hldgs. 10p	96xc	1.6	‡1.36	3.2	2.0	22.0
May Dec.	Lucas Inds. £1	206	30.3	11.0	—	7.6	—
April	Solex (UK) A 50p	53	1.5	0.1	—	0.3	—
Oct. July	Supra Group 10p	53	1.5	2.0	1.0	5.4	25.1
Feb. Aug.	Woodhead (J.)	35xd	29.6	0.1	—	0.4	—

Garages and Distributors

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Sept. April	Adams Gibbon	70	23	3.75	1.9	7.7	(8.4)
Jan.	Alexanders 10p	10½	369	—	—	—	6.1
Nov. May	Appleyard Grp.	56	14.4	—	—	—	—
Feb. Aug.	Arlington Motor	110	24.12	‡9.0	2.2	11.7	5.1
Jan. Aug.	Attwood Garages	61	30.6	‡1.45	—	‡	—
Jan. July	BSG Int. 10p	18	12.5	—	—	—	—
Aug. Mar.	Braid Group 5p	28	11.2	—	—	—	—
Nov. May	Bramall (C. D.)	110	1.5	d5.55	3.2	7.2	5.8
May Nov.	Brit. Car Auct. 10p	84	1.6	b3.2	1.8	5.4	14.9
Jan. July	Caffyns 50p	108	15.6	4.5	—	6.0	—
Mar. Nov.	Cowie (T.) 5p	39	18.5	3.0	2.1	11.0	5.2
Apr. Nov.	Davis Godfrey	84	23	5.5	φ	6.1	φ
May Dec.	Dorada	34	15.9	2.1	—	8.8	—
August	Gates (F.G.)	45	1.6	2.0	4.9	6.4	4.3
March	Glanfield Lawr.	34	11.2	—	—	—	—
May Nov.	Hanger Invs. 10p	33	14.4	—	—	—	—
Jn. June	Harrison (T.C.)	73	18.5	2.95	2.7	5.8	9.1
Jan. July	Hartwells	95	1.6	5.37	1.7	8.1	(9.1)
Aug. Apr.	Henlys 20p	86xd	29.6	6.0	—	10.0	—
Oct. April	Heron Mtr. Grp.	26	9.2	0.8	—	4.5	—
Dec. June	Hurst (Charles)	45	8.12	2.98	φ	9.8	φ
Jan. July	Jessups	32	18.5	2.0	—	8.9	—
Apr. Oct.	Kenning Mtr.	72	9.2	5.5	1.1	11.1	(11.2)
Oct. May	Lex Service Grp.	110	10.4	7.0	1.9	9.1	(6.8)
Oct. April	Lookers	48	16.3	3.85	2.0	11.8	5.8
May Sept.	Manor Nat. Group 20p	14	14.4	—	—	—	—
Apr. Oct.	Nelson David 5p	9½	1179	—	—	—	—
Dec. June	Perry (H.) Mtrs.	92	18.5	3.5	2.9	5.4	9.1
May Oct.	Quick (H. & J.) 10p	56	10.4	1.15	1.2	2.9	(37.3)
May	Tate of Leeds	88	18.4	1.25	16.5	2.0	3.0
Dec. July	Western Mtr.	85	1179	—	—	—	—

NEWSPAPERS, PUBLISHERS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Nov. May	Ass. Book P. 20p	288	18.5	7.5	1.5	3.7	(22.8)
Jan. Aug.	Assoc. News	228	26.1	10.4	3.8	6.5	4.4
May Dec.	BPM Hldgs. 'A'	97	23	‡5.25	2.7	7.7	5.4
Apr. Oct.	Benn Brothers	56	9.2	3.4	1.7	8.7	8.6
Jan. Oct.	Black (A. & C.)	80	1.6	2.0	—	3.6	—
Feb. Sept.	Bristol Post	210	8.12	‡9.75	2.4	6.6	8.9
Oct. May	Collins William	228	30.3	‡d7.5	2.4	4.7	(11.1)
Oct. May	Do. "A"	160	30.3	‡d7.5	2.4	6.7	(7.0)
Feb. Aug.	Daily Mail 'A' 50p	438	26.1	‡26.0	1.2	8.5	13.7
Jan. July	E. Mid. Allied 'A'	110	15.6	3.5	3.8	4.5	10.1
Jan. Nov.	Gordon & Gotch	173	8.12	7.5	1.5	6.2	12.4
Feb. Oct.	Haynes Pub.	115	9.2	‡d7.0	0.8	8.7	15.5
Apr. May	Home Counties	78	10.4	6.5	1.2	11.9	10.4
July Feb.	Independent	110	26.1	Q62.9%	1.4	11.0	9.5
Jan. July	Int. Thomson	240	1.6	‡123.6c	—	2.6	—
Jan. July	Do. Conv.	260	1.6	10.5	—	f5.8	—
Apr. Nov.	Link House 20p	220	16.3	‡8.4	2.0	5.5	13.3
Oct. Apr.	L'pool D. Post 50p	145	30.3	9.5	—	9.4	φ
Nov. June	News Int. Sp. Div.	113	13.10	g4.5	5.5	5.8	4.9
Nov. July	Pearson Longman	170	18.5	8.36	2.8	7.0	5.6
Jul. Dec.	Portsm'th & Sund.	112	1.6	3.25	4.8	4.1	6.5
Mar. Sept.	Routledge & KP	115	11.8	‡d4.7	3.1	‡	(6.1)
May Oct.	Sharpe (W. N.) Hldgs.	345	16.3	7.0	5.3	2.7	9.8
Nov. June	Utd. Newspapers	213	10.4	12.0	1.5	8.0	10.5
Dec. June	Websters Grp. 5p	52	1.5	2.3	2.1	6.3	9.5

PAPERS, PRINTING ADVERTISING

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
—	‡A.I.D. 10p	28	—	—	—	—	58.2
Apr. July	Assoc. Paper	37	18.5	‡2.0	1.1	‡	(15.5)
Oct. Apr.	Ault & Wiborg	33	16.3	1.8	2.7	7.8	5.4
June Jan.	BPC	21	28.4	B—	—	—	—
Dec. May	Bemrose	60	18.4	1.5	1.3	3.6	(27.8)
Jan. July	Brunning Grp.	83	15.6	d4.03	—	6.9	—
Jan. July	Do. Restric. Vtg.	78	15.6	d4.03	—	7.4	—
Nov. June	Bunzl Pulp	138	10.4	7.23	3.2	7.5	5.8
Dec. June	Capseals 5p	35	10.4	‡d3.3	3.0	13.5	2.9
Jan. July	Causton (Sir J.)	31	1.6	2.01	2.1	9.3	7.2
Jan. Aug.	Chapman Bal. 50p	190	1.6	6.5	—	4.9	φ
Apr. Oct.	Clay (Richard)	58	16.3	3.0	1.9	7.4	(8.0)
December	Clondalkin Group	77	1.5	Q6.7%	4.5	9.0	3.5
January	Cradley 10p	17	13.10	d0.53	3.9	4.4	7.5
Aug. Dec.	Cropper (James)	130	24.12	2.5	φ	2.8	φ
August	Culter Guard	19	30.6	—	—	—	—
April	Delyn 20p	12	275	—	—	—	11.9
Nov. July	DRG	88	1.6	6.0	1.5	9.7	(8.0)
Sept. Apr.	East Lancs. Ppr	65	16.3	3.5	0.3	7.7	—
July Nov.	Eucalyptus	208xd	29.6	6.0	6.5	4.1	3.9
Apr. Nov.	Ferry Pick 10p	100	10.4	2.6	3.7	3.7	10.5
Nov. May	Geers Gross 10p	130	1.6	4.0	2.1	4.4	16.8
—	‡‡Harrison Cowley	85	—	3.85	2.7	6.7	8.0
—	‡L.C.A. Hldgs. 8p	22	—	0.1	7.6	0.6	29.0
July Feb.	McCorquodale 50p	128	15.6	‡7.89	2.2	8.8	(5.9)
Sept.	Melody Mills	27	14.1	‡1.0	6.9	‡	2.9
Apr. Oct.	Mills & Allen 50p	455	30.3	h13.64	3.6	4.3	9.2
July Dec.	More O'Ferr. 10p	155	18.5	4.0	3.9	3.7	9.9
F.J.S.D.	Ogilvy & M. $2	£17½	12.5	Q$1.40	—	4.1	—
Sept. Apr.	Olives Paper 20p	30	25.2	—	—	—	—
Jan. Sept.	Oxley Print Grp	15	15.6	0.1	—	1.0	—
Apr. Sept.	Saatchi 10p	330	9.2	‡h4.8	3.3	2.1	20.4
Mar. Oct.	Smith (Dvid) 20p	110	26.1	‡7.0	2.0	9.1	7.8
Jan. Aug.	Smurfit (Jeffsn.)	163	13.10	Q52.2%	φ	6.2	φ
Jan. Aug.	Transparent Ppr.	45	15.6	0.1	φ	0.3	φ
Jan. July	Usher Walker 10p	64	18.5	4.07	φ	9.1	4.2
Nov. June	Wace Group 20p	23	29.9	1.44	0.9	9.1	—
Feb. Aug.	Waddington (J.)	128	12.1	‡11.9	—	‡	—
Nov. May	Watmoughs	185	30.3	5.25	3.6	4.1	7.6
Jan. Sept.	Wyatt (W'drow) 5p	15	26.1	‡2.5	1.5	‡	(3.6)

PROPERTY

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
July Dec.	All'd London 10p	81	1.6	‡h1.19	2.6	2.1	26.0
Jan. Sept.	Allnatt London	218	24.11	‡3.7	1.9	2.4	31.3
—	Amal. Estates	28	—	—	—	—	—
—	Anglo Metropolitan	106	—	φ	—	—	—
Apr. Oct.	Apex Props. 10p	150	9.2	2.0	1.7	1.9	43.9
Mar. Oct.	Aquis. Secs. 5p	32	2.3	0.9	1.2	4.0	30.8
Sept. Mar.	Beaumont Props.	125	9.2	5.25	1.2	6.0	19.9
Jan. Apr.	Belzer (C. H.) 10p	122	18.4	‡d6.2	4.9	7.3	3.2
July Dec.	Berkeley Hambro	286	30.3	6.6	2.3	3.3	18.1
Jan. Nov.	Bilton (Percy)	204	15.6	6.9	φ	4.8	φ
Dec. Aug.	Bradford Prop.	226xd	29.6	4.0	φ	2.5	φ
Apr. Sept.	British Land	96	1.9	‡0.25	16.5	0.4	16.6
Apr. Oct.	Do. 12pc Cnv. 2002	£316	13.10	Q12%	6.0	f3.8	—
July Nov.	Brixton Estate	142	15.6	‡3.15	1.4	3.6	(28.9)
Jan. Oct.	Cap. & Counties	126	15.6	3.4	—	3.9	φ
Feb. Aug.	Cardiff Prop 20p	124xd	29.6	1.6	1.2	1.8	(53.8)
—	‡‡Carlton Real 10p	25	—	0.5	φ	2.9	φ
Apr. Oct.	C'ntrovincial 20p	182	23	2.66	φ	2.1	φ
Aug. Jan.	Chesterfield	350	18.5	6.0	1.4	2.4	43.2
Dec. June	Churchb'ry Est.	680	18.5	12.0	1.7	2.5	33.3
Apr. Sept.	City Offices	97	23	3.1	8.9	4.6	35.9
Jan. July	Clarke Nickolls	143	1.5	4.0	2.8	4.0	(8.8)
Jan. July	Control Secs. 10p	62	24.11	‡h1.91	1.7	4.4	(8.8)
Apr. Oct.	C'ntry New T. 10p	58	23	0.85	3.4	2.1	18.0
—	‡Crest Int Secs 10p	17	—	—	—	—	—
Mar. Sept.	DaeJan (Hldgs.)	191	9.2	3.5	3.9	2.6	14.0
—	Daon Dev Corpn.	516	—	Q16c	—	1.2	—
Sept. Feb.	Dares Estates 10p	23½	1.5	d1.13	—	6.9	—
—	Espley-Tyas	82	—	h3.92	1.2	6.8	17.0
July	Ests. & Agency	143	30.3	1.0	—	1.0	—
Nov. June	Ests. & Gen. 20p	56	18.5	1.55	2.0	4.0	(15.8)
Jan. Apr.	Ests. Prop. Inv.	164	9.2	‡6.25	1.2	5.4	21.8
Jan. Aug.	Evans Leeds	158	8.12	4.0	φ	3.7	φ
Apr. Dec.	Fairview Ests. 50p	131	10.4	‡h3.95	5.7	4.3	4.3
Nov. May	Fed. Land	133	10.4	3.35	1.7	3.6	19.9
June	Goodkind (W.) 10p	47	28.4	0.23	φ	0.7	φ
Feb. Sept.	Gt. Portland 50p	256	24.11	‡5.0	φ	3.4	φ
Jan. Apr.	Green (R.) 10p	86	16.3	2.2	2.6	3.7	15.0
Jan. July	Greencoat 5p	16	1275	—	—	—	—
September	Greycoat Ests. 10p	185	1.9	0.32	3.7	0.2	—
June	Hammerson 'A'	660	18.5	9.0	1.2	2.0	58.2
Feb. Oct.	Haslemere 10p	416	24.12	‡5.2	2.2	1.8	32.2
Jun. Nov.	HK Land HK$2.5	111	14.4	s028c	1.4	2.3	30.3
Mar. Sept.	Imry Property	825	24.12	‡7.5	1.7	1.3	65.3
August	Jermyn Invest	95xd	28.6	1.63	1.2	2.4	43.9
May Nov.	Kent (M.P.) 10p	137	1.5	‡1.9	6.1	2.0	8.7
Apr. Sept.	Langmate Ests. 10p	36½	374	—	—	—	—
Jan. Nov.	Laing Properties	194	18.4	4.0	1.9	2.9	25.8
July Oct.	Land Invest.	60	1.3	1.0	1.3	2.4	46.3
Dec. July	Land Sec. 50p	414	1.6	9.5	1.3	3.3	34.9
Mar. Sept.	Do. 10% Conv. '95	£290	29.9	Q10%	27.4	f4.4	—
July Nov.	Law Land 20p	97	18.5	1.5	0.6	2.2	—
Oct. Mar.	Lend Lease 50c	290	14.2	‡Q30%	1.4	2.6	24.8

PROPERTY—Continued

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Dec. June	Lon. Prov. Shp. 10p	443	18.5	‡2.4	1.6	0.8	—
Apr. Dec.	Lon. Shop Prop	114	16.3	‡3.1	1.8	3.9	16.7
Apr. Sept.	Lynton Hdgs. 20p	280	9.2	‡3.1	2.0	1.6	45.1
Dec. June	MEPC	247	15.9	‡5.75	1.2	3.3	32.4
July	Marlborough 5p	44	1.5	0.33	1.6	1.1	(75.4)
Sept. Dec.	Marler Estates	95	26.1	2.0	2.4	3.0	(16.2)
—	McInerney 10p	24xd	29.6	Q26.6%	2.4	9.2	6.0
Mar. Oct.	McKay Secs. 20p	142	9.2	‡2.7	2.5	2.7	31.3
May Nov.	Mountleigh	120	30.3	‡5.0	4.3	3.6	7.0
April Aug.	Mountview 5p	172	15.6	2.9	φ	2.4	φ
Jan. July	Muckow (A. & J.)	113	18.5	‡3.83	2.5	4.9	(16.0)
—	New Cavendish 5p	390	—	—	—	—	—
July Feb.	North Brit. Props.	185	1.5	‡2.8	1.8	2.3	37.2
June Jan.	Peachey	148	18.5	4.0	2.3	3.9	16.6
—	Pennine Com. 10p	10½	—	—	—	—	—
—	Phoenix Mtn. & Fin.	73	—	—	—	—	—
Jan. July	Prop. Hldg. & Inv.	160xa	29.6	3.08	φ	2.8	φ
Jan. Aug.	Prop. Part'ship	258xd	29.6	5.0	φ	2.8	φ
Jan. July	Prop. & Rev.	168	1.6	3.0	1.6	2.6	35.9
Apr. Oct.	Prop. Sec. Inv 50p	190	26.1	‡1.8	1.4	1.4	—
January	Raglan Prop 1p	14½	—	—	—	—	—
May Nov.	Regalian	44	474	φ	—	—	φ
April Oct.	Regional Prop.	159	2.3	‡1.9	2.3	1.7	36.1
April Oct.	Do. 'A'	157	2.3	‡1.9	2.3	1.7	35.6
September	Rosehaugh 10p	316	28.7	2.1	11.1	1.0	13.5
Jan. June	Rush & Tompkins	224	18.5	3.75	0.5	2.4	—
Jan. July	Samuel Props.	115	18.5	‡4.2	2.1	5.2	11.5
Aug. Jan.	Scot. Metrop. 20p	114xd	29.6	‡3.25	1.3	4.1	31.7
May Oct.	Second City 10p	69	30.3	h2.22	2.3	4.6	(18.5)
Oct. May	Slough Ests	149	10.4	2.76	2.8	2.6	(22.7)
June Dec.	Do. 10% Conv. '90	£263	15.6	Q10%	22.2	f3.8	—
June Dec.	Do. 8% Cnv. 91-94	£123	15.6	Q8%	5.5	f6.5	—
Apr. Aug.	Stock Conversn.	357	9.2	‡h3.21	3.3	1.2	33.3
—	Swire Props. $HK1	140	—	hQ40c	φ	2.6	φ
—	‡Thames Inv. & Secs. £1	232	—	u5.18	1.2	3.2	(34.8)
—	‡Do. 12xCv. Pf. 75p	183	18.5	12%	—	7.0	—
December	Town Centre	53	13.10	h0.83	1.0	2.2	64.3
Apr. Oct.	Town & City 10p	30	14.7	0.01	—	—	—
Apr. Nov.	Trafford Park	167	30.3	‡6.0	1.6	5.1	15.7
April	Trust of Prop. 5p	18½	23	0.27	1.1	2.1	62.3
—	‡Trust Secs.	374	—	‡u7.88	4.5	3.0	—
Nov. April	Utd. Real Prop.	490	2.3	6.0	1.2	1.8	70.0
Jan. July	Warner Estate	360	18.5	6.5	1.1	2.6	48.7
Apr. Oct.	Warnford Inv. 20p	470	16.3	10.0	1.2	4.0	29.6
May	Wereldhave DFl.20	£22	6.3	Q55.8%	1.0	6.3	15.5
Mar. Oct.	W'stmin. & C'ty P.	75	16.3	‡3.0	3.3	5.7	(6.2)
—	W'minster P. 20p	34½	9.2	d0.2	4.9	0.8	26.6
—	Wilson Peck	21	—	—	—	—	—
July Oct.	Winston Ests.	115	1.6	‡1.93	4.9	2.4	11.4

SHIPPING

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Dec. Aug.	Brit. & Comm.	300xd	29.6	12.5	φ2.9	6.0	7.3
May Dec.	Common Bros. 50p	375	24.11	14.0	2.3	5.3	11.5
Oct. May	Fisher (J.)	168	30.3	2.15	4.4	1.8	13.5
—	Gotaas-Larsen $1	340	—	—	—	—	—
Jan. July	Hunting Gibson	134	18.5	6.0	3.5	6.4	5.0
May Oct.	Jacobs (J. I.) 20p	37	30.3	sd2.3	1.6	9.4	8.4
July	Lon. O'Seas Frtrs.	40½	15.6	1.07	—	3.8	—
Jan. July	Lyle Shipping	328	1.6	9.5	4.8	4.1	5.6
—	Mersey Dk. Units	24	—	—	—	—	—
July	Milford Docks £1	112xd	29.6	0.5	—	0.6	—
Jan. July	Ocean Transport	130	10.4	9.0	2.2	9.9	(5.4)
Jan. July	P. & O. Defd. £1	124	18.5	8.0	1.8	9.2	(7.4)
Apr. Oct.	Reardon Sm. 50p	152	29.9	0.1	15.2	—	71.4
Apr. Oct.	Do. 'A' 50p	132	29.9	0.1	15.2	—	62.0
Jan. July	Runciman (W.)	135	1.6	7.5	2.8	7.9	6.1
—	Sea Containers 12½c	£12¼	27.5	Q30c	—	1.3	—

SHOES AND LEATHER

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
July Dec.	Booth (Intn'l)	58	1179	φ	—	—	—
April Dec.	Footwear Invs.	52	30.3	d5.04	0.7	13.8	15.6
Oct. June	Garnar Booth	75	1.6	6.25	—	11.9	—
Dec. June	Headlam, Sims 5p	40	1.6	2.37	3.0	8.5	(4.4)
Mar. Sept.	K Shoes	93	8.12	φ14.0	3.7	‡	5.6
Apr. Oct.	Lambert Hth. 20p	52	30.3	4.06	2.4	11.2	(4.3)
Apr. Oct.	Newbold & Burt'n	54	2.3	3.78	1.3	10.5	9.3
Jan. May	Pittard Grp.	44	30.3	4.0	—	13.0	—
Feb. Aug.	Scott (David) 10p	24½	1.5	1.58	1.1	9.8	(13.1)
Mar. Nov.	Strong & Fisher	79	30.3	6.8	—	12.3	—
Oct.	Stylo Shoes	152	11.9	3.0	0.5	2.9	(39.0)
Nov. June	Ward White	59	1.5	4.2	1.9	10.2	6.3

SOUTH AFRICANS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Apr. Sept.	Abercom R0.30	175	23	‡Q30c	2.0	9.8	5.2
Sept. Mar.	Anglo Am. In. R1	£10	16.3	Q140c	3.1	8.0	4.1
Jan. July	Barlow Rand R.10c	400	18.5	‡Q58c	3.8	8.3	4.0
September	Gold Flds. P. 2½c	78	1.9	Q10c	1.4	7.3	10.0
Mar. Sept.	Gr'tmns 'A' 50c	455	18.5	‡Q60c	2.4	7.5	5.6
Dec. July	OK Bazaars 50c	720	1.5	Q120c	1.9	9.5	5.6
November	Rex Trueform 'A' 50c	170	10.11	Q35c	3.6	11.8	2.3
Dec. July	S.A. Brews. 20c	167	1.6	Q27c	1.5	9.2	7.0
May Nov.	Tiger Oats R1	790	30.3	Q80c	3.9	6.0	4.3
May Nov.	Unisec 20cts	110	10.4	sQ20c	1.1	10.4	8.5

TEXTILES

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Sept. Mar.	Allied Textile	137	9.2	7.24	2.5	7.6	7.4
Jan. Aug.	Atkins Bros.	50	15.6	4.65	1.6	13.3	6.1
Dec. July	Beales (J.) 20p	31	679	—	—	—	—
May Nov.	Beckman A. 10p	78	10.4	5.73	0.8	10.5	18.0
June Jan.	Blackwood Mort	12	979	—	—	—	—
Apr. Sept.	Bond St. Fab. 10p	43	30.3	‡2.0	—	6.6	—
May	Brit. Enkalon	5½	576	—	—	—	—
May Nov.	Brit. Mohair	43	30.3	3.77	0.3	12.5	—
Jan. July	Bulmer L'mb. 20p	44	1.6	3.82	1.4	12.4	7.2
Jan. July	Caird (Dundee)	12	675	—	—	—	—
Jan. June	Carpets Int. 50p	27	480	—	—	—	—
May Nov.	Carr'gtn Viyella	15½	280	—	—	—	—
Dec. June	Coats Patons	73½	18.5	4.0	2.2	7.8	(6.9)
Oct. May	Corah	37	16.3	2.9	1.4	11.2	(8.2)
Jan. July	Courtaulds	68	1.6	1.0	—	2.1	—
Mar. Sept.	Do. 7% Deb 82/7	£71¼	9.2	Q7%	—	ε15.1	—
July	Crowther (J.)	23	680	—	—	—	—
Feb. Sept.	Dawson Intl.	183xd	29.6	8.25	2.6	6.4	8.3
Apr. Oct.	Dixon (David)	130	8.12	9.95	2.6	10.9	4.4
Feb. July	Early (C.) & M. 10p	26	1.6	1.8	1.1	9.9	(22.0)
Nov. July	Foster (John)	27	24.11	0.5	—	2.6	—
May Nov.	Gaskell B'loom 20p	63	16.3	3.5	2.8	7.9	5.5
Apr. Nov.	Hicking P'st. 50p	82	9.2	6.0	φ	11.0	φ
July	Hield Bros. 5p	15	2.6	—	—	—	—
Jan. Aug.	Highams	46	15.6	3.58	2.1	11.1	5.1
Mar. Oct.	Hollas Grp 5p	102	9.2	6.0	2.6	8.4	5.7
Aug. Feb.	Homfray	14	1279	—	—	—	—
Oct. Mar.	Ill'gworth M. 20p	18	1279	‡0.55	—	‡	—
Oct. Mar.	Do. 'A' 20p	12	1279	‡0.55	—	‡	—
Jan. Aug.	Ingram (H.) 10p	31	1279	—	—	—	—
Nov. May	Jerome (Hldgs.)	113	10.4	h2.93	2.6	3.7	13.2
Jan. July	Leeds Dyers	53	1.6	3.0	1.9	8.1	9.5
Mar. June	Levex 5p	18½	8.12	0.5	φ	3.9	φ
Jan.	Lister	37	24.12	0.1	—	0.4	—
Jan. July	Lyles (S.) 20p	59	1.5	5.5	1.5	13.8	6.7
May Dec.	Mackay Hugh	48	30.3	3.62	—	10.8	—
Jan. July	Martin (A.) 20p	29	580	—	—	—	—
Nov. June	Miller (F.) 10p	85	1.5	2.2	3.5	3.7	11.1
Sept. Apr.	Montfort	49	30.3	2.0	—	5.8	—
—	Munton Bros 10p	24	—	—	—	—	—
July Dec.	Notts. Manfg.	151	18.5	4.0	3.4	3.8	9.3
Mar. Sept.	Nova Jersey 20p	83	8.12	4.5	φ	8.0	φ
Jan. June	Parkland 'A'	42	15.6	3.7	0.3	12.6	—
Aug. Dec.	Pickles (W.) & Co.	8	1079	—	—	—	—
Aug. Dec.	Do. 'A' NV 10p	4	1079	—	—	—	—
Jan. Dec.	Radley Fashion	26	280	‡d0.5	0.7	‡	(32.0)
Mar. Oct.	Reliance Knit 20p	19	23	‡3.1	1.6	‡	(3.1)
Feb.	Richards 10p	22	18.5	‡1.45	0.6	9.6	(23.1)
Mar. Oct.	S.E.E.T. 20p	76	9.2	‡2.7	6.8	5.1	4.1
July Dec.	Scott Robertson	27	16.3	1.53	—	8.1	—
Jan. Sept.	Sekers Int. 10p	18	28.7	‡2.3	1.5	‡	(4.6)
Jan. July	Shaw & Marvin 10p	16	—	—	—	—	—
Feb. Aug.	Shaw Carpets 10p	27xd	29.6	2.0	φ	10.6	φ
Jan. May	Sirdar	180	18.4	‡d5.0	3.7	4.0	9.0
May Oct.	Small & Tidmas	95	15.9	3.0	2.9	4.6	(11.8)
Apr. Sept.	Smallshaw R. 10p	24	26.1	1.75	1.9	10.4	7.3
July	Sn. Viscosa L1200	37½	775	—	—	—	—
July	Do. Priv. L1200	41½	775	—	—	—	—
May Oct.	Spencer (Geo.)	8	15.9	0.8	1.7	4.8	(14.8)
Sept.	Stewart Nairn	7	1.9	0.05	8.3	1.0	(18.5)
Apr. Oct.	Stirling Knit 20p	65	9.2	‡0.85	8.1	1.9	9.4
Apr. Nov.	Stoddard 'A'	15	280	‡d0.56	—	‡	—
Jan. July	Stroud Riley Dr'd	75	9.2	‡3.0	1.9	5.7	10.8
May Oct.	Sunbeam Wolsey	23	10.4	Q10.4%	—	6.7	—
July	Tern-Consulate	58xd	29.6	0.5	—	1.2	—
Mar. Sept.	Text'rd Jrsy. 10p	120	9.2	5.5	φ	6.7	φ
February	Tomkinsons	52	8.12	d2.0	0.9	5.5	30.7
Feb. July	Tootal	32½	18.5	2.35	φ	10.3	φ
June Dec.	Toray Y50	77	14.7	Q11%	φ	1.6	φ
April Oct.	Trafford Carpets	21	879	—	—	—	—
June Dec.	Yorklyde 20p	200	18.5	15.0	3.7	10.7	2.8
Mar. Oct.	Yorks. Fine W. 20p	37	1179	—	—	—	—
Oct. May	Youghal	10	977	—	—	—	—

TOBACCOS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan. July	BAT Inds.	375	18.5	‡19.0	2.8	7.2	(5.6)
Nov. Mar.	Imperial	69½	23	7.25	1.6	14.9	(5.3)
Jan. Sept.	Rothmans 12½p	73½	24.12	3.11	5.1	6.0	3.5

TRUSTS, FINANCE, LAND

Investment Trusts

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
	For Aberdeen Invs see Aitken Hume (Finance Land)					
Dec. June	Aberdeen Trust	141	18.5	‡5.8	1.1	5.9
Jan. Sept.	Ailsa Inv.	190	12.1	‡7.7	1.0	5.8
Dec. July	Alliance Inv.	212xd	29.6	5.4	1.0	3.6
Oct. May	Alliance Trust	276	16.3	10.5	1.1	5.4
Nov. July	Altifund Inc. 50p	148	1.6	13.75	1.1	13.3
Nov. July	Do. Capital 50p	356	1.6	0.69	—	0.3
Dec. July	Ambrose Inv. Inc.	70	15.6	7.1	1.1	14.5
—	Do. Cap.	94	—	—	—	—
Oct. May	American Trust	71	10.4	2.1	1.1	4.2
—	American Tst. 'B'	69	—	—	—	—
Aug. Mar.	Anglo Am. Secs	135	2.3	4.75	1.1	5.0
Sept. Apr.	Anglo-Int. Div.	52½	2.3	5.0	1.0	13.6
—	Do. Asset Shs.	220	—	—	—	—
June Dec.	Anglo-Scot. Inv.	68½	18.5	s2.4	1.2	5.0
Aug. Feb.	Archimedes Inc.	96xd	29.6	‡7.2	1.0	10.7
—	Do. Cap. 50p	55	—	—	—	—
Dec. June	Argo Inv. (SA1)	122	5.11	hQ11½%	1.1	5.4
Aug. Mar.	Ashdown Inv.	195xd	29.6	6.2	1.0	4.5
January	Atlanta Balt. 10p	80	24.11	1.0	1.5	1.8
November	Atlantic Assets	268	13.10	h0.95	3.0	0.5
Dec.* June	Atlas Elect.	92½	18.5	3.3	1.1	5.1
N.F.My.Au.	Bankers' Inv.	75½	1.9	F3.93	1.0	7.6
December	Berry Trust	189	10.11	1.44	1.0	1.1
Nov. June	Bishopsgate Tst	99xa	29.6	h3.33	1.0	5.1
May Dec.	Border & Sthn. 10p	89½	1.5	s2.6	1.3	4.2
—	Brazil Fd. S.A. Cr$1	US$6	—	hQ21¾%	—	0.8
Jan. Sept.	Bremar Tst.	60	1.6	2.1	φ	5.0
Apr. Sept.	Brit. Am. & Gen.	51	2.3	2.35	1.1	6.6
Ap Jy O Ja	British Assets	108	18.5	‡4.0	1.2	5.3
May Nov.	Brit. Emp. Secs. 5p	15¾	1.9	0.85	1.2	7.7
Feb. Aug.	Brit. Ind. & Gen. Dfd.	150	18.5	s5.0	1.2	4.8
Dec. June	Brit. Invest.	194	18.5	8.85	1.3	6.5
Oct. Apr.	Broadstone (20p)	222	16.3	7.1	1.0	4.6
Apr. Aug.	Brunner Inv.	82xd	29.6	‡2.83	1.0	4.9
June Dec.	C.L.R.P. Inv.	95½	10.4	3.5	1.1	5.2
Dec. Aug.	Caledonia Invs.	285	16.6	13.5	φ	7.0
Jan. Dec.	Cambrian and Gen.	114	1.6	‡6.5	1.1	6.9
May	Camellia Invs. 10p	455	16.3	5.0	2.9	1.6
Dec. June	Can. & Foreign	179	18.5	5.6	1.1	4.5
Apr. Nov.	Capital & Nat.	170	9.2	‡6.75	1.0	5.7
—	Do. "B"	160	—	—	—	—
Sept. Mar.	Cardinal Dfd	144	2.3	4.5	1.1	4.5
June Dec.	Cedar Inv	92	1.9	‡4.6	1.2	7.3
June	Chan'l Is. Inc. £1	255	16.3	Q37.5%	1.1	14.7
—	Do. Cap.	231	368	—	—	—
Aug. Mar.	Charter Trust	74xd	29.6	3.2	1.1	6.2
—	Child Health £1	173	—	—	—	—
Mar. Sept.	City & Com. Inc.	33½	16.3	2.82	φ	12.0
—	Do. Cap. (£1)	269	—	—	—	—
—	City & For. Inv.	88	2.3	0.7	1.7	1.1
Nov. June	City of Oxford	113	18.5	5.5	1.0	7.0
Mar. Sept.	Claverhouse 50p	140	26.1	6.4	1.0	6.5
—	Clifton Invs 10p	11#	674	—	—	—
Apr. Aug.	Colonial Secs. 5p	59	—	N3.0	1.1	7.3
Feb. Aug.	Continent'l & Ind.	279xd	29.6	11.0	φ	5.6
Oct. June	Continent'l Union	153	18.5	6.25	1.0	5.8
March	Cres'nt Japan 50p	331	23	0.95	1.0	0.4
Mar. Aug.	Crossfriars	120	16.3	s5.7	1.0	6.8
Feb. Aug.	Danae (Inc.) (50p)	40½	12.1	3.85	1.0	13.6
—	Do. (Cap.) 10p	4½	—	—	—	—

INVESTMENT TRUSTS—Cont.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Aug. Feb.	Derby Tst. Inc. £1	282	26.1	20.26	1.0	10.3
—	Do. Cap. 50p	372	—	—	—	—
Dec. July	Dominion & Gen.	256xd	29.6	10.7	1.0	6.0
Feb. Aug.	Drayton Com'cl	159	23	7.0	1.1	6.3
May Dec.	Do. Cons.	172	18.5	7.6	1.2	6.3
Apr. Aug.	Do. Far Eastern	90½	23	1.24	1.5	2.0
Apr. Aug.	Do. Premier	219	23	10.2	1.1	6.7
Nov. May	Dualvest Inc. 50p	70	18.5	6.97	1.0	14.2
—	Do. Capital £1	483	—	—	—	—
Jan. July	Dundee & Lon.	91xd	29.6	3.85	0.9	6.0
April	Edinburgh Am. Tst.	115	23	0.8	1.1	1.0
June Dec.	Edinburgh Inv.	73	1.5	1.96	1.0	3.8
Jan. July	Electra Inv. Tst.	59½xd	29.6	2.69	1.0	6.4
Feb. Aug.	Elect. & Gen.	122	24.12	2.45	φ	2.9
		487				
Nov. July	Eng. & Internatl	116	15.6	5.5	1.1	6.8
Oct. April	Eng. & N.Y. Trust	93½	23	4.05	1.1	6.2
Sept. Mar.	Eng. & Scot. Inv.	76	23	1.8	1.1	3.4
Jan. Aug.	Eng. Nat. Inv. Prefd.	28	18.5	2.36	1.5	12.0
Jan. Aug.	Eng. Nat. Inv. Defd.	78	18.5	4.54	0.8	8.6
Jan. Aug.	Equity Cons't £1	136	24.12	‡9.01	1.0	9.5
August	Do. Def'd 50p	230	14.7	‡9.63	1.1	6.0
May Dec.	Equity Inc. 50p	292	1.5	‡16.5	1.1	8.1
Dec. June	Estate Duties	82½xa	1.5	2.3	1.1	4.0
October	F. & C. Eurotrust	51½	15.9	1.45	1.1	4.0
May Nov.	Family Inv. Tst.	120	16.3	6.0	1.1	7.1
Sept. Apr.	First Scot. Am.	128	16.3	4.55	1.0	5.1
Nov. Apr.	Foreign & Col.	74	2.3	h1.85	1.0	3.6
Jan. July	F.U.G.I.T. (R0.25)	108xd	29.6	‡Q14c	φ	5.2
Dec. June	Fulcrum Inc.	52½	18.5	4.6	1.1	12.5
—	Do. Cap. 2½p	4¾	—	—	—	—
May Nov.	Fundinvest Inc.	47½	18.5	‡4.18	1.0	‡
—	Do. Cap.	119	—	—	—	—
—	G.T. Global Rec.	104	—	—	—	—
Oct. Mar.	G.T. Japan	340	26.1	‡2.0	0.8	0.8
May Oct.	Gen. & Comm'cl.	199	1.9	9.35	1.1	6.7
Aug. Apr.	Gen. Consolidtd.	116	23	5.9	1.1	7.3
Sept. Mar.	General Funds	322	23	7.75	1.0	3.4
—	Do. Conv. 10p	290	—	—	—	—
Oct. Apr.	Gen. Investors	183	10.4	6.0	1.2	4.7
Dec. June	Gen. Scottish	64	1.6	2.9	φ	6.5
Mar. Sept.	Gen. St'hlders. 12½p	200	1.6	3.7	1.1	2.6
Mar. Aug.	Glasgow St'hldrs.	80	23	h2.13	1.1	3.8
July Jan.	Globe Inv.	156	12.1	‡7.25	1.2	6.6
Mar. Sept.	Grange Trust	133	26.1	3.7	1.1	4.0
Feb. Aug.	Gt. North'n Inv	134xd	29.6	6.6	1.0	7.0
March	Greenbank Tst.	150xd	29.6	4.0	φ	3.8
April	Greenfriar Inv	184	9.2	2.0	1.4	1.6
Feb. July	Gresham Hse.	293	24.12	3.65	2.2	1.8
Mar. Oct.	Gresham Inv.	80	24.12	‡3.0	1.9	5.4
Mar. Sept.	Group Investors	99	26.1	‡2.8	1.1	4.0
Dec. July	Guardian Inv. Tst.	109	18.5	4.7	1.0	6.2
July Dec.	Hambros	206	1.6	6.0	1.1	4.2
July Dec.	Hill (Philip)	129	1.6	6.1	1.1	6.8
—	Independent Inv.	160	—	—	—	—
Dec. June	Industrial & Gen.	79	1.6	3.0	1.1	5.4
Sept. Mar.	Internat'l Inv.	99	16.3	4.15	1.1	6.0
Sept. Apr.	Inv. in Success	298	2.3	4.9	1.1	2.4
Mar. Sept.	Investors' Cap.	125	26.1	‡3.05	1.1	3.5
Mar. Sept.	Jardine Sec. HK$5	200	16.10	Q55c	1.0	2.5
Nov. June	Jersey Gen. £1	302	1.6	Q20.0	1.0	6.6
May Oct.	Jos Holdings	77	2.3	‡3.25	1.2	6.0
May Nov.	Jove Inv. Inc. 10p	45½	10.4	4.3	1.1	13.5
—	Do. Cap. 2p	7½	—	—	—	—
Mar. Sep.	Keep Investments 5p	11¾	30.3	0.39	φ	4.7
July Feb.	Keystone Inv. 50p	218	15.6	10.5	1.2	6.9
Nov. Jun.	Lake View Inv.	163	1.5	3.85	1.2	3.4
April	Lanc. & Lon. Inv.	81	2.3	2.63	1.1	4.6
Apr. Oct.	Law Debenture	153	16.3	7.25	1.2	6.8
March	Lazard Stlg. Res. 1p	£16¼	31.12	2.59	—	—
Aug. Feb.	Leda Inv. Inc. 20p	41	26.1	4.27	1.0	14.9
—	Do. Cap. 5p	50	—	—	—	—
—	Le Valionet	74#	680	‡2.5	1.1	5.0
Feb. July	Lon. Atlantic	105	1.6	4.75	1.1	6.5
October	Lon. & Gart. 50p	130	1.9	1.0	1.7	1.1
Nov. July	Lndn. & Holyrood	158	15.6	5.75	1.0	5.2
June Jan.	Lon. & Lennox	48	15.6	1.9	1.1	5.7
Apr. Aug.	Lon. & Lomond	105	23	3.8	1.1	5.3
Mar. Nov.	Lon. & Montrose	103	9.2	‡h3.52	1.1	4.9
Nov. June	Lon. & Prov.	148	15.6	5.3	1.0	5.0
Dec. July	Lon. Prudential	112	1.6	4.85	1.0	6.2
May Dec.	Lon. & S'clyde	76½	30.3	‡2.05	1.3	3.8
June Dec.	London Trust	94	1.6	3.5	1.0	5.3
June Dec.	Lowland Inv	82	1.5	‡3.75	1.2	6.5
Sept. Mar.	M & G Dual Inc. 10p	240	26.1	18.35	1.0	10.9
—	Do. Cap. 10p	264	—	—	—	—
July Jan.	Do. 2nd Dual Inc. 10p	97	1.6	7.8	1.0	11.5
—	Do. Cap. 4p	52½	—	—	—	—
June Dec.	Man. & Metrop. Inv.	90xc	29.6	22.0	0.7	3.2
Mar. Sep.	Meldrum Inv.	74	23	3.25	1.2	6.3
Apr. Sep.	Mercantile Inv.	63	16.3	2.52	1.1	5.7
Sept. May	Merchants Tst	100	30.3	4.15	1.0	5.9
Feb. July	Monks Invest	78	15.6	2.4	1.0	4.4
May	Mont. Boston 10p	68	1.5	1.05	1.3	2.2
—	Do. Wrrts. £1	18½	—	—	—	—
Jan. Aug.	Moorgate Inv	165	24.12	‡7.1	1.0	6.1
Aug. Mar.	Moorside Trust	72½	23	h3.5	1.1	6.9
Feb. Oct.	Murray Caledonian	76	8.12	‡2.3	1.0	4.3
—	Do "B"	72	—	—	—	—
Jan. May	Murray Clydesdale	72	16.3	1.65	1.1	3.3
—	Do. B	68	—	—	—	—
Apr. Nov.	Murray Glendevon	139	12.1	‡2.55	1.2	2.6
—	Do. 'B'	132	—	—	—	—
Jan. Sept.	Murray Northn.	88	10.11	1.75	1.0	2.8
—	Do. 'B'	83	—	—	—	—
Apr. Aug.	Murray Western	87	15.6	‡2.3	1.0	3.8
—	Murray Western B	82	—	—	—	—
March	Negit S.A. $US1	350	375	Q13c	—	1.9
—	New Darien Oil Tst.	95	—	—	—	—
Ap. Oc. Jy.	New Throg. Inc.	20	15.6	2.0	φ	14.3
—	Do. Cap. £1	207	—	—	—	—
—	Do. New Wrrts.	41	—	—	—	—
—	New Tokyo Inv. 50p	129	—	—	—	—
Dec. June	1928 Invest	88	18.5	4.4	1.1	7.1
May Dec.	Nth. Atlantic Sec.	134	10.4	s4.3	1.2	4.6
June Dec.	Nth. Brit. Canadian	122	10.6	4.8	1.1	5.6
June Dec.	Nthn. American	137	1.6	‡4.6	1.0	4.8
Dec. July	Northern Secs	270xd	29.6	4.4	φ	2.3
Jan. Aug.	Oil & Assoc. Inv	93	24.11	‡s3.5	1.7	5.4
June Nov.	Outwich Inv.	74½	1.6	s2.21	1.2	4.2
Apr. Sept.	Pentland Inv.	161	15.6	6.3	1.0	5.6
Mar. Sept.	Provincial Cities	42#	11.8	‡2.0	1.2	6.8
Dec. Sept.	RIT 50p	369	24.11	‡11.5	1.1	4.4
Aug. Feb.	Raeburn	159xd	29.6	6.35	1.1	5.7
Apr. Oct.	Rights & Iss. Cap.	62	2.3	0.19	—	—
Oct. Mar.	River & Merc.	139	2.3	‡7.5	1.0	7.7
Sept. Mar.	River Plate Def.	125	26.1	h5.25	1.1	6.0
Apr. Nov.	Robeco (Br.) Fl50	£46¾	—	Q22%	1.0	4.4
Apr. Nov.	Do. Sub. Sh's Fl5	465	—	Q22%	1.0	4.4
—	Rolinco NV Fl50	£50½	27.11	Q10%	1.0	1.8
—	Do. Sub. Sh's Fl5	502	27.11	Q10%	1.0	1.9
Aug. Mar.	Romney Trust	131	23	4.4	1.0	4.8
Apr. Nov.	Rosedimond Inc.	59½	16.3	6.5	1.0	15.6
—	Do. Cap	146	—	—	—	—
Dec. June	Safeguard Ind	108	1.5	5.8	1.1	7.8
Oct. April	St. Andrew Tst.	160	23	6.3	1.1	5.6
Mar. July	Scot. Am. Inv. 50p	149xd	29.6	4.0	1.0	3.8
Dec. June	Scot. Cities 'A'	293	10.4	10.5	1.1	5.1
Apr. Oct.	Scot. East. Inv.	85½	16.3	3.25	1.1	5.4
Dec. July	Scot. European	45	18.5	φ1.65	1.0	5.2
July Jan.	Scottish Inv	149	1.6	4.3	1.1	4.1
June Dec.	Scot. Mort. & Tst.	171	18.5	5.3	1.0	4.4
June Dec.	Scot. National	224	1.6	‡6.85	1.2	4.4
May Dec.	Scot. Northern	113	1.5	3.45	1.0	4.4
July Dec.	Scot. Ontario	83	24.11	3.15	1.0	5.6
Aug. Mar.	Scot. Utd. Inv.	65	23	h1.53	1.0	3.4
Apr. Oct.	Sec. Alliance Tst.	233	23	‡8.5	1.2	5.2
Dec. June	Securities T. Sc.	112	18.5	4.9	1.1	6.2
June	Select Risk Inv. $US5	790	15.6	Q25c	—	1.7
Apr. Sept.	Shires Inv. 50p	141	1.6	11.8	1.0	12.0
Dec. June	Sphere Inv	155	1.6	6.25	1.0	5.8
Dec. June	SPLIT Inc. 10p	195	18.5	16.43	φ	12.0
—	SPLIT Cap. 10p	110	—	—	—	—
Apr. Aug.	Sterling Tst.	216	15.6	9.5	1.0	6.3
June Jan.	Stockholders Inv.	172	1.6	3.5	1.2	2.9
Feb. Sept.	Technology	169	12.1	4.3	φ	3.7
Mar. Oct.	Temple Bar	128½	23	7.7	1.0	8.6
April Nov.	Throg. Growth	28	23	2.57	0.8	13.4
—	Do. Cap. £1	145	—	—	—	—
Mar. Aug.	Throgmorton	118xd	29.6	6.0	1.0	7.3
Mar. Oct.	Tor. Invest. Inc.	107	23	18.4	1.4	11.2
Mar. Oct.	Do. Cap.	182	29.9	‡0.84	1.4	0.7
Feb. May	Trans. Oceanic	260	30.3	7.0	1.0	3.8
Apr. Aug.	Tribune Invest	104	23	2.7	1.4	3.7
Oct. Apr.	Triplevest. Inc. 50p	77	27.4	7.1	1.0	13.7
—	Do. Capital £1	384	—	—	—	—
Dec. June	Trust Union	79	18.5	3.05	1.1	5.5
Feb. Aug.	Trustees Corp	72½	24.12	2.75	1.1	5.4
Feb. Aug.	Utd. Brit. Secs.	165	24.12	‡7.0	1.0	6.1
May Aug.	US Deb. Corp	110	10.4	5.58	1.0	7.2
Mar. July	U.S. & General Tst.	262xd	29.6	10.5	1.0	5.7
June	Viking Resources	97	18.5	0.66	1.2	1.0
March	W. Cst. & Texas 10p	90	23	1.3	1.3	2.1
June Dec	Wemyss Inv. £1	373	1.6	19.0	1.1	7.3
Aug. Mar.	Winterbottom 5p	69	—	‡0.6	1.0	1.2
Feb. Aug.	Witan Inv	158½	15.6	3.75	φ	3.4
Apr. Sept.	Yeoman Inv.	128	23	h6.38	1.0	7.1
July Dec.	Yorks. & Lancs.	35	1.6	‡2.0	1.1	8.2
Dec. June	YoungCo's Inv. £1	130	18.5	6.0	1.0	6.6

Finance, Land, etc.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Dec. June	Aitken Hume	293	1.6	5.5	φ	3.2	φ
Feb. July	Akroyd Smithers	152	18.5	hs12.5	5.1	11.8	2.4
—	Aust. Fanning	70	—	—	—	—	—
December	Authority Inv. 20p	66	1275	—	—	—	27.8
Jan. July	Britannia Arrow	51	10.4	1.0	2.4	2.8	17.5
Feb. Oct.	Centreway Trust	135	11.8	‡8.0	4.1	‡	3.1
July Oct.	Corinthian 10p	33	1.5	1.85	3.8	8.0	3.9
—	‡Energy Fin. 10p	40	—	1.25	2.5	4.5	12.6
—	‡Do. 8pcCn Uns. 95/2000	£89	—	Q8%	—	f13.7	—
May Dec.	English Assoc.	407	15.6	F6.0	3.7	2.1	32.4
October	Ex Lands 10p	12	680	0.56	1.6	6.7	13.7
Feb. July	Fashion & Gen. 5p	278	24.12	g15.2	1.0	8.0	17.7
Feb. Aug.	Hambro Trust	160	9.2	‡3.52	φ	3.1	φ
June	Hampton Tst. 5p	39	—	—	—	—	—
June	Haw Par. S. $1	119	24.6	φQ10c	φ	1.9	φ
Oct. Mar.	Int. Inv. Tst. Jay. £1	418	23	Q7.0	φ	1.7	φ
September	Investment Co.	27	28.7	‡1.58	2.1	8.3	7.4
Feb. Sept.	Kalouzi ⅓5	45	9.2	Q125c	1.3	15.8	5.0
—	Kellock 5p	43	—	0.06	14.9	0.2	(32.6)
—	Do. Conv. Prf. 5p	42	—	0.06	14.9	0.2	(31.0)
Aug. Mar.	Kitch'n. Taylor 10p	125	9.2	10.0	0.8	11.7	16.1
November	Kwahu 10p	22	13.10	1.84	1.1	12.0	(8.0)
July Dec.	Lamont Hldgs. 10p	28½	18.5	1.1	2.5	7.7	(6.3)
June Nov.	Lon. Euro. Grp.	40	18.5	‡1.35	3.7	4.8	7.9
—	London Inv. 5p	17	12.1	‡0.88	—	7.4	—
Jan. Nov.	Lon. Merchant	73	24.12	‡h0.9	3.3	1.8	20.1
—	Do. Defd.	61	—	—	—	—	—
—	Do. 7¼pcCnUns 2000-05	£85	—	Q7¼%	—	F9.4	—
June Feb.	M. & G. Group	355	1.6	‡10.0	2.1	4.0	16.8
November	Majedie Invs. 10p	103	19.11	2.25	1.5	3.2	30.1
May Nov.	Martin (R.P.) 5p	182#	2.3	‡14.5	4.1	3.5	9.7
Feb. Aug.	Mercantile Hse.	855	9.2	‡12.5	1.9	2.1	34.3
September	Merc. Comm. Mkt. In.	£14	—	Q48.75	φ	3.6	φ
April	Merc. Trans. Tst. 1p	£16¼	20.3	Q51.0	1.6	3.2	φ
October	N.M.C. Invs. 12½p	12	11.8	1.57	1.7	18.7	4.6
—	Nippon Fd. Stg. 10p	395	—	—	—	—	—
May Sept.	Paramba 10p	22	18.4	0.6	1.5	3.9	24.1
May Nov.	Park Place Inv.	90	10.4	‡h3.0	2.0	4.8	13.3
June Nov.	Petrson (S) & Son	208	18.5	10.0	3.1	6.9	5.3
—	‡Plant & Gen. Invs.	70	—	1.5	2.3	3.1	16.2
Apr. Dec.	Scot. & Merc. 'A'	233	2.3	g10.7	1.2	6.6	18.7
—	Sal. Ma. Ptg. Rd. Prf.	£15½	212	—	—	—	—
Nov. May	S.E. £4½pc Ann.	£61	10.4	Q4½%	—	7.0	—
March Oct.	Smith Bros.	40	2.3	‡2.5	2.4	8.9	6.6
June	Suez Fin. NF150	£23½	16.6	Q20%	1.1	11.1	8.4
May	Tolux SAH	150	—	Q60.21	2.2	7.2	6.3
	H6.5W6M15For Westn. Select. See Electricals						
July Dec.	Westpool Inv.	70	26.1	‡1.15	—	2.3	—
—	‡Yelverton Invs.	51	—	—	—	—	13.3
December	Yorkgreen 10p	13	1.5	‡0.44	4.0	4.8	7.5
Apr. Aug.	Yule Catto 10p	83	18.5	1.71	1.6	3.0	30.4

OIL AND GAS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
—	‡‡Am Oil Flds 20p	100	—	—	—	—	—
January	Anvil Pet 20p	208	777	—	—	—	—
—	Aquian Energy C$1	25	—	—	—	—	—
—	‡‡Aran Energy 20p	67	—	—	—	—	—
—	‡‡Atlantic Res.	195	—	—	—	—	—
—	Basic Res. Int. S.A.	439	—	—	—	—	—
—	‡‡Berkeley Expln.	368	—	—	—	—	—
—	Brandon £1	70	—	—	—	—	—
July Dec.	Brit. Borneo 10p	272	18.5	12.35	1.9	6.4	24.9
—	Brit. Can. Res. C$10	325	—	—	—	—	—

OIL AND GAS—Continued

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Nov. May	Brit. Petroleum	310	16.3	‡20.25	3.4	9.3	3.6
Jan. July	Do. 8% Pf. £1	57	15.6	5.6%	14.05	14.0	—
—	Brunswick Oil NL	13½	—	—	—	—	—
Jan. July	Burmah £1	134	1.5	6.5	2.1	6.9	(7.9)
Feb. Aug.	Do. 8½ Ln. 91/96	£62	24.12	Q8½%	14.6	d15.8	—
—	‡CCP North Sea	195	—	—	—	—	—
—	‡‡Cambridge Pet. 20p	363	—	φ	—	—	—
—	‡‡Candecca Res.	202	—	—	—	—	—
Jan. July	Carless Capel 10p	140	15.6	2.75	1.7	2.8	26.6
Jan. Aug.	Century 10p	72	15.6	2.8	2.8	5.6	7.5
—	Ceres Res. C$5.00	160	—	—	—	—	—
—	Charterhall 5p	68	367	—	—	—	—
May	Charterhouse Pet.	86	10.4	1.0	3.8	1.7	22.6
July	Cie Fr. Petroles B.	£11⅛xd	2.7	Q54%	φ	20.9	φ
—	Claremont Pet. NL	12½	—	—	—	—	—
—	‡Cluff Oil £1	205	10.12	—	—	—	—
—	‡Do. Cnv. A	205	—	—	—	—	—
Jan. Jly	‡Clyde Petroleum	173	1.5	0.55	1.8	0.5	—
—	Collins (K) Pet 1c	15	—	—	—	—	—
—	‡Conroy Pet (R0.25)	207	—	—	—	—	—
—	Dorset Res. C$1	42	—	—	—	—	—
—	Double Eagle	230	—	—	—	—	—
—	‡‡Edinburgh Secs.	223	1.5	g1.28	1.4	0.8	—
—	‡‡EnPlan Oil & Gas	110	—	—	—	—	—
—	Energy Capital 12½p	95	—	—	—	—	—
—	Falmouth Pet	90	—	—	—	—	—
—	‡Floyd Oil 10p	90	—	—	—	—	—
—	‡‡Gaelic Oil 20p	235	—	—	—	—	—
—	Gas & Oil Acre 20p	450	—	—	—	—	—
—	Genoa Oil NL 50c	220	—	—	—	—	—
—	Global Nat. Res. US$0.01	885	—	—	—	—	—
—	Gulfstream Res. Can.	269	—	—	—	—	—
—	Hamza Pet C$1.00	30	—	—	—	—	—
—	Humboldt Engy C$1	26	—	—	—	—	—
Jan. July	Hunting Petrol	212	1.6	6.5	3.3	4.4	8.1
April Sept.	Imp. Cont. Gas £1	183	24.12	h7.0	2.4	5.5	8.6
Nov Sept.	Do. 8pc Cv Un 95-2000	£85	9.2	Q8%	—	f9.6	—
—	International Pet.	290	—	—	—	—	—
—	Jessel Trust 5p	19	—	—	—	—	—
Oct. June	KCA	148	18.5	5.25	1.2	5.1	(21.9)
—	LASMO	553	—	—	—	—	18.6
Feb. Aug.	LASMO 14% 1981-88	£99¼	26.1	Q14%	—	14.1	—
Apr. Oct.	LASMO "Ops" 10p	962	30.3	71.19	—	10.6	—
—	Magellan Pet.	525	—	—	—	—	—
—	Magnet Metals 10c	22	10.12	—	—	—	—
—	‡‡Marinex Pet. 10p	132	—	—	—	—	φ
June Dec.	Moonie Oil A$0.50	750	30.6	Q5c	3.5	0.4	—
Mar. Aug.	NCC Energy 10p	124	30.6	‡1.75	—	2.0	—
—	‡New Court Nat. 5p	56	—	1.0	φ	2.6	φ
—	‡Nth. Sea Assets 50p	145	—	2.0	1.0	2.0	72.0
—	‡NORE 10p	153	—	—	—	—	18.3
—	Offshore 10c (xp)	23	—	—	—	—	—
—	Ohio Resources	162	—	—	—	—	—
—	Oil & Gas Prod $0.02	36	—	—	—	—	—
—	Do. Part Pd. $0.02	5	—	—	—	—	—
—	Palliser Res.	395	—	—	—	—	—
—	‡‡Pennine Res.	47	—	—	—	—	—
—	‡Pict. Pet. £1	260	—	—	—	—	—
—	Premier Cons. 5p	78	—	—	—	—	293.0
—	Ranger Oil	658	—	—	—	—	—
May Oct.	Royal Dutch Fl.10	£16½	18.5	Q68½%	3.9	7.7	3.4
—	S. & K. Pet. US$5.00	225	—	—	—	—	—
—	SASOL R1	161	—	‡Q13c	4.2	4.7	5.0
May	Santos A0.25c	420	10.4	hQ4.3c	1.5	0.6	—
—	Sceptre Res.	685	—	—	—	—	—
—	Shackleton Pet.	43	—	—	—	—	—
Nov. May	Shell Trans. Reg.	360	30.3	19.1	3.0	7.6	(4.9)
Feb. Aug.	Do. 7% Pf. £1	49xd	29.6	4.9%	17.09	14.3	—
Jan. Apr.	Silkolene	222	30.3	5.0	2.5	3.2	15.7
—	‡Sovereign Oil	360	—	—	—	—	—
—	Stena Romana (Brit)	75	—	—	—	—	—
—	Strata Oil N.L.	114	—	—	—	—	—
—	‡‡Sun (UK) Royalty 1p	310	—	—	—	—	—
—	TR Energy	93	—	—	—	—	—
Apr. Oct.	Texaco 4¾% Cnv.	£69	7.5	Q4¾%	—	f7.0	—
—	Tri Basin Res.	170	—	—	—	—	—
May Nov.	Tricentrol	260	10.4	8.4	3.2	4.6	9.6
Nov. May	Ultramar	450	10.4	11.0	4.8	3.5	6.5
—	Warrior Res.	200	—	—	—	—	—
—	Weeks (B'muda) 10c	440	—	—	—	—	—
—	Do. Pf. (Aust.) 10c	435	—	Q1.8	—	0.4	—
—	Westfort Pet.	110	—	—	—	—	—
—	Woodside A50c	127	—	—	—	—	—

OVERSEAS TRADERS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
May	African Lakes	39	10.4	h1.0	6.4	3.7	5.0
—	Assam Trading B 10p	68	1.9	1.25	2.4	2.6	22.9
June	Aust. Agric. 50c	187	10.4	Q15c	φ	4.6	φ
Apr. Oct.	Berisford (S. & W.)	127	9.2	‡7.5	2.3	8.6	(7.0)
Jan. July	Borthwick (Thos.) 50p	20	24.12	0.01	—	—	—
Jan. July	Boustead 10p	168	1.6	1.25	1.2	1.1	(18.8)
July Jan.	Finlay (James)	134	15.6	6.25	φ	6.7	φ
July Dec.	Gill & Duffus	194	18.5	8.4	2.7	6.2	(5.6)
June	Gt. Nthn. £10	£21	4.6	Q12%	1.1	5.7	16.0
Aug. Dec.	H'ris'ns. Cros. £1	812	15.6	28.0	1.7	4.9	(8.2)
Sep. Apr.	Inchcape £1	425	9.2	‡18.15	2.0	6.1	9.8
May Oct.	Jacks Wm.	22	15.9	0.35	3.8	2.3	12.6
Oct.	Lonrho	93	9.2	s9.0	1.6	13.8	(5.8)
Jan. May	Mitchell Cotts	48	30.3	3.61	1.5	10.7	(7.5)
Apr. Nov.	Nesco Invests.	178	2.3	‡7.0	1.1	5.6	(26.1)
Dec. July	Ocean Wlsns. 20p	50xd	29.6	2.84	φ	8.1	φ
Apr. Dec.	Pat'son. Zoch. 10p	130	15.6	‡h3.5	6.7	3.8	5.5
Apr. Dec.	Do. 'A' N/V 10p	130	15.6	‡h3.5	6.7	3.8	5.5
May Nov.	Sime Darby M$0.5	118	13.10	‡Q13c	2.6	2.3	16.8
Jan. July	Steel Bros.	193	18.5	8.0	2.7	5.9	7.1
Jan. June	Tozer Kems. 20p	65	1.5	2.39	1.6	5.2	(14.9)
Apr. Oct.	Do. 8pc. Ln. '81	£97	16.3	Q8%	96.3	f8.4	—
May June	U. City Merc. 10p	39	16.3	φd1.4	2.4	5.1	11.7
Mar. Sept.	Do. 10pc Ln. 16p	39	2.3	φQ10%	80.4	f4.7	—
Apr. July	Warren Plants.	220	15.6	10.0	2.3	6.5	9.1

RUBBERS AND SISALS

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
August	Anglo-Indones'n	112	14.7	3.33	0.6	4.4
Aug. Nov.	Barlow Hldgs. 10p	111xd	29.6	‡3.0	φ	3.9
Sept.	Bertam Cons. 10p	85	15.9	0.8	1.8	1.3
Feb. July	Castlefield 10p	460xd	29.6	‡6.0	2.3	1.9
Apr. Nov.	Cons. Plants M$0.5	62½	23	Q18c	2.2	5.9
—	Grand Central 10p	6	1279	—	—	—
Apr. July	Guthrie £1	775	15.6	30.0	1.0	5.5
May Oct.	Harrisons Mly. Est. 10p	213	23	8.0	0.9	5.4
Nov. May	Highlands M50c	80	10.4	Q15c	0.9	3.8
Apr. Nov.	Kuala Kepong M$1	62	23	‡Q12½c	1.3	4.1
Jan July	‡‡Kulim M50c	74	13.12	Q12c	1.4	3.4
Aug. Jan.	Ldn. Sumatra 10p	375	27.10	‡8.0	3.5	3.1
Dec. June	Malakoff M$1	140	18.5	Q17½c	φ	2.6
Apr. Oct.	Malay. Plants. M$1	84	18.5	Q18c	1.3	4.4
—	Rightwise 10p	133	—	—	—	—

TEAS

India and Bangladesh

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
August	Assam Dooars £1	293	1.6	6.0	1.7	2.9
November	Assam Frontier £1	197	13.10	10.0	2.3	7.2
November	Lawrie Plants £1	415	27.10	18.5	2.9	6.4
November	McLeod Russel £1	300	11.8	15.0	1.0	7.1
May Nov.	Moran £1	275	23	‡8.0	0.8	‡
Apr. Dec.	Williamson £1	213	23	12.5	2.4	8.4

Sri Lanka

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Apr. Dec.	Lunuva £1	415	1.5	≤21.0	1.3	7.2

Africa

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—	Ruo Estates	60	2.80	φ1.0	4.3	2.4

MINES

Central Rand

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
February	Durban Deep R1	712xd	29.6	‡Q460c	2.7	‡
Aug. Feb.	East Rand Prp. R1	553xd	29.6	‡Q370c	3.1	‡
Aug Feb.	Randfont'n Est. R2	£21⅝xd	26.1	‡Q1100c	2.4	‡
Aug. Feb.	West Rand R1	92	15.6	‡Q17½c	14.5	‡

Eastern Rand

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
May Nov.	Bracken 90c	105	30.3	‡Q84c	1.5	‡
—	Cons. Modd'tein 5c	74	—	—	—	—
Sept. Mar.	East Daggfa R1	90	9.2	Q15c	0.8	9.5
Dec. June	ERGO R0.50	348	1.5	Q200c	1.2	33.0
Aug. Feb.	Grootvlei 25c	316xd	29.6	‡Q204c	1.2	‡
May Nov.	Kinross R1	522	30.3	‡Q191c	1.4	‡
May Nov.	Leslie 65c	100	30.3	Q60c	1.4	34.3
Aug. Feb.	Marievale R0.25	114xd	29.6	‡Q120c	1.0	‡
Mar. Sept.	S. African Ld. 35c	168	9.2	φQ55c	1.5	18.7
Aug. Feb.	Viakfontein 70c	90xd	29.6	‡Q40c	1.4	25.4
May Nov.	Winkelhaak R1	£12¾	30.3	‡Q453c	1.5	20.4
September	Wit. Nigel 25c	63	11.8	Q3c	13.5	2.8

Far West Rand

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Feb. Aug.	Blyvoor 25c	567xd	29.6	Q260c	φ	[illegible]
Feb. Aug.	Buffels	£14⅞xd	15.6	Q710c	φ	27.3
Feb. Aug.	Deelkraal R0.20	161	24.12	Q5c	3.2	1.8
Feb. Aug.	Doornfontein R1	807xd	29.6	Q335c	φ	23.5
Aug. Feb.	Driefontein R1	£11⅛xd	29.6	‡Q340c	1.2	16.8
—	Elandsrand Gld. 20c	211	—	—	—	—
Feb. Aug.	Elsburg R1	142	26.1	‡Q78c	1.0	‡
Feb. Aug.	Hartebeest R1	£24⅝xd	29.6	Q1025c	φ	24.2
Feb. Aug.	Kloof Gold R1	£12⅞xd	29.6	Q400c	φ	17.8
Feb. Aug.	Libanon R1	765xd	29.6	Q330c	φ	24.7
Mar. Aug.	Southvaal 50c	£14	9.2	Q430c	1.0	17.6
Aug. Feb.	Stilfontein 50c	712	15.6	‡Q460c	1.4	‡
Mar. Sept.	Vaal Reefs 50c	£29¾	9.2	Q1320c	1.5	25.9
Feb. Aug.	Venterspost R1	395xd	29.6	Q235c	φ	34.2
Feb. Aug.	Western Areas R1	206	26.1	‡Q120c	2.1	‡
Mar. Sept.	Western Deep R2	£18½	9.2	Q880c	1.4	24.8
Feb. Aug.	Zandpan R1	422xd	29.6	Q173c	φ	23.5

O.F.S.

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Mar. Sept.	Free State Dev. 50c	215	9.2	‡Q35c	1.6	9.3
Jun. Dec.	F.S. Geduld 50c	£17	18.5	‡Q950c	1.9	‡
—	F.S. Saaiplaas R1	290	975	φ—	—	—
May Nov.	Harmony 50c	633	30.3	Q360c	φ	32.6
—	Loraine R1	142	975	—	—	—
Jun. Dec.	Pres. Brand 50c	£16⅜	18.5	‡Q695c	2.2	24.3
Jun. Dec.	Pres. Steyn 50c	£13¾	18.5	‡Q665c	1.4	‡
May Nov.	St. Helena R1	£16	30.3	‡Q725c	1.3	25.9
May Nov.	Unisel	274	30.3	Q80c	2.0	16.7
Jun. Dec.	Welkom 50c	593	18.5	‡Q280c	1.3	27.1
Jun. Dec.	W. Holdings 50c	£25	18.5	‡Q1050c	1.1	34.3

Finance

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
May	Afex Corpn. 16⅔p	37	6.5	Q0.88	12.5	2.4
Apr. Sept.	Ang. Am. Coal 50c	£14	1.6	Q108c	3.0	4.4
Jan. Jly.	Anglo Amer. 10c	650	15.6	Q110c	2.1	9.7
May Oct.	Ang. Am. Gold R1	£40⅝	30.3	Q1150c	1.2	16.2
Feb. Aug.	Ang-Vaal 50c	£19xd	29.6	Q300c	φ	9.0
Jan. July	Charter Cons. 2p	232xd	29.6	10.0	φ2.9	6.2
May Dec.	Cons. Gold Fields	436	16.3	‡22.5	2.2	7.4
July May	East Rand Con. 10p	20	18.5	1.05	2.0	7.5
Oct. May	Gencor 40c	885	15.9	Q150c	2.3	10.2
Oct. Dec.	Gold Fields S.A. 25c	£38	2.3	‡Q400c	1.9	6.0
Feb. Oct.	Jo'burg Cons. R2	£33½	12.1	‡Q475c	2.1	8.1
Aug. Feb.	Middle Wit. 25c	580xd	29.6	Q85c	φ	8.4
Mar. Oct.	Minorco $BD1.40	517	2.3	‡Q30c	1.3	2.6
Mar. Sept.	New Wit. 50c	211	9.2	‡Q36c	1.4	9.8
—	Patino NV Fls.5	£27	11.75	QC50c	φ	0.7
Nov. Oct.	Rand London 15c	246	13.10	Q13c	3.1	3.0
October	Rand London Coal	85	13.10	bQ14c	2.8	9.1
October	Do. Part. Cum. Prf.	33	10.4	bQ11.3c	—	19.0
Jan. July	Rand Min. Props.	275	24.11	Q24c	2.1	5.0
Aug. Feb.	Sentrust 10c	343	9.2	NQ72c	1.6	12.0
May Oct.	Silvermines 2½p	102	29.9	Q7½%	2.6	3.3
Aug. Nov.	Tanks Con. 50p	280xd	29.6	Q14.0	—	5.0
Jan. July	Do. Pref. 80p	90	8.12	Q9%	—	8.0
July Jan.	T'vaal. Cons. Ld. R1	£22⅞	18.5	‡Q225c	3.5	6.0
Sept. Apr.	U.C. Invest R1	525	2.3	Q150c	1.3	16.4
Sept. Mar.	Vogels 2½c	100	9.2	Q16c	1.6	9.2

Diamond and Platinum

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Nov. May	Anglo-Am. Inv. 50c	£43½	1.5	Q890c	1.0	11.7
Apr. Oct.	De Beers Df. 5c	375	30.3	Q75c	2.5	11.4
Jan. Aug.	Do. 40pc Pf. R5	700xd	29.6	Q200c	[illegible]	16.3
Apr. Oct.	Impala Plat. 20c	370	23	Q100c	2.1	15.5
Nov. May	Lydenburg 12½c	135	10.4	‡Q12½c	1.0	14.1
Nov. May	Rus. Plat. 10c	220	10.4	φQ40c	2.5	10.4

Central African

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
May Nov.	Coronation 25c	120	30.3	Q90c	1.9	47.7
Nov. May	Falcon Rh. 50c	275	1.5	‡Q20c	1.8	‡
—	Roan Cons. K4	100	130	‡Q0.13	φ	7.5
Nov. May	Wankie Col. Rh.1	41	10.4	‡Q10c	1.7	‡
May Oct.	Zam. Cpr. $BD0.24	22	15.9	Q3½c	0.9	8.2

MINES—Continued

Australian

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—	Acmex 50c	45	—	Q2.5c	—	3.2
—	ACM 20c	37	—	—	—	—
—	Argosy Gold NL 25c	17	—	—	—	—
—	Bond Corp.	226	—	Q7½c	1.9	1.9
Nov. Apr.	Bougainville I Kina	93	7.3	Q25.7c	1.0	15.8
—	CRA 50c	264	16.3	Q19c	1.7	4.1
—	Canada Northwest	19	—	—	—	—
—	Carr Boyd 20c	19	—	—	—	—
—	Central Pacific	75	—	—	—	—
—	Cent. Gold Min. N.L. 50c	15	—	—	—	—
—	Coltus Pacific N.L.	33	—	—	—	—
—	Eagle Corp. 10c	65	—	—	—	—
—	Endeavour 20c	32½	—	—	—	—
June	G. M. Kalgoorlie 25c	385	579	‡Q13c	φ	2.8
—	Great Eastern	12	—	—	—	—
Sept. Feb.	Hampton Areas 10p	225xd	29.6	2.5	φ	1.6
—	Haoma Gold N.L.	62	—	—	—	—
—	Intl. Mining	32	—	—	—	—
—	Jimberlana (50cFP)	52	—	—	—	—
—	Kitchener NL 25c	150	—	—	—	—
—	Leichhardt Expln.	45	—	—	—	—
—	Meekatharra	400	—	—	—	—
—	Metals Ex. 50c	60	—	‡Q3c	2.9	2.9
—	Metramar Mns. 20cts	29	—	—	—	—
—	Mid East Mins. NL	12	—	—	—	—
Oct. Apr.	M.I.M. Hldgs. 50c	256	15.2	‡Q27.5c	1.7	‡
—	Minefields Expl. 25c	12	—	—	—	—
—	Mount Lyell 25c	122	—	‡Q15c	1.7	7.1
—	Newmetal 20c	16	—	—	—	—
—	Nickelore N.L.	58	—	—	—	—
June Nov	North B. Hill 50c	199	19.11	Q18c	3.1	5.3
—	Nth. Kalgurli	69	—	—	—	—
—	Nth. Mining Corp.	176	—	—	—	—
—	N. West Mining NL	53	—	—	—	—
May Nov.	Oakbridge 50c	148	27.10	‡Q12c	1.1	4.7
—	Oilmin N.L.	165	—	—	—	—
—	Pacific Copper	184	—	—	—	—
—	Pancont'l 25c	410	—	—	—	—
—	Paringa M&Ex. 5p	83	—	φ	—	—
Apr. Oct.	Peko-Wallsend 50c	495	12.3	φQ22½c	φ	2.6
—	Pelsart Res NL	34	—	—	—	—
—	Seltrust A	85	—	—	—	—
—	Southern Pacific	34	—	—	—	—
—	Swan Resources 20c	96	—	—	—	—
—	West Coast 25c	13	—	—	—	—
Oct. May	Westn. Mining 50c	327	16.3	Q14c	1.6	2.4
—	Westmex	16	—	—	—	—
—	Whim Creek 20c	64	—	—	—	—
—	York Resources	68	—	—	—	—

Tins

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
Feb. Apr.	Amal Nigeria 1p	9	—	‡H6.0	—	—
Apr. Nov.	Ayer Hitam $M1	245	16.3	‡Q205c	1.0	‡
Dec. July	Beralt Tin	104	30.6	φ5.0	3.3	6.9
Feb. Aug.	Geevor	107	16.6	—	—	—
—	Gold & Base 12½p	11	1074	—	—	—
July Jan.	Gopeng Cons.	525	1.5	‡30.0	1.8	‡
Dec. Aug.	Hongkong	355xd	29.6	21.0	φ	8.4
July Sept.	Idris 10p	135	1.6	9.0	0.8	9.5
June	Jantar 12½p	33	2.6	3.0	φ	14.3
September	Kamunting $M0.50	85	24.12	‡Q80c	1.0	‡
Oct. Apr.	Killinghall $M1	625	9.2	‡Q66.7c	φ	2.2
Jan. May	Malay Dredging 10c	114#	14.4	‡hQ38c	0.9	6.8
—	Pahang	66	27.11	0.63	0.8	1.4
July Jan.	Pengkalen 10p	117	1.5	3.5	0.6	4.3
June Jan.	Petaling $M1	330	15.6	‡Q180c	1.4	‡
Oct. Feb.	South Crofty 10p	24#	28.12	‡1.0	4.4	‡
Jan. Aug.	Sungei Besi $M1	215	8.12	‡Q480c	1.1	‡
—	Supreme Corp. $M1	185	9.74	φQ15c	φ	1.7
Mar. July	Tanjong 15p	118	15.6	3.5	3.7	4.2
Sept. Mar.	Tongkah H. Tin 15p	75	21.5	Q23%	0.4	6.1
Oct. June	Tronoh $M1	345	1.6	Q110c	1.2	6.5

Copper

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
January	Messina R0.50	305xd	29.6	‡Q45c	4.7	8.4

Miscellaneous

Dividends Paid	Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—	Anglo-Dominion	155	—	—	—	—
—	Barymin	47	—	—	—	—
May	Burma Mines 10p	20	30.3	0.75	0.9	5.4
—	Colby Res. Corp.	250	—	—	—	—
Aug. Feb.	Cons. Murch. 10c	230	30.6	‡Q30c	1.8	7.5
—	‡‡Hemerdon 10c	65	—	—	—	—
—	Highwood Res.	150	—	—	—	—
—	Northgate C$1	350	977	—	—	—
Jan. July	R.T.Z.	535	18.5	16.0	3.2	4.3
—	Do. 9¼% Cv. Ln. '85 2000	£118	18.5	Q9½%	—	f8.1
—	‡‡SPO Minerals 10p	110#	—	—	—	—
—	Sabina Inds. C$1	27	—	—	—	—
—	‡‡SWCM 10p	37	—	—	—	—
—	Tara Exptn. $1	555	—	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- φ Figures or report awaited.
- ♦ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- †† Dealt in under Rule 163(2)(a); not listed on any Stock Exchange and not subject to any listing requirements.
- ‡‡ Dealt in under Rule 163(3).
- # Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ♦ Merger bid or reorganisation in progress.
- ♦ Not comparable.
- ♦ Same interim: reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ☆ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ** Regional price.
- ‖ No par value.
- §§ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. ☆☆ Available only to UK pension schemes and insurance companies engaged in pension business. a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Tax free up to 30p in the £. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1981-82. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1982. K Figures based on prospectus or other official estimates for 1981-82. M Dividend and yield based on prospectus or other official estimates for 1980. N Dividend and yield based on prospectus or other official estimates for 1981. P Figures based on prospectus or other official estimates for 1982. R Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xl ex capital distribution.

REGIONAL MARKETS

The following is a selection of London quotations of shares previously listed only in regional markets. Prices of Irish issues, most of which are not officially listed in London, are as quoted on the Irish exchange.

Stock	Price	+/-	IRISH	Price	+/-
Albany Inv. 20p	44	+1	Conv. 9% '80/82	£92	−⅛
Bertam	13		Nat. 9¾% 84/89	£70¼	+½
Bdg'wtr. Est. 50p	480	+10	Fin. 13% 97/02	£81	+⅛
Craig & Rose £1	£12½		Alliance Gas	72	
Finlay Pkg. 5p	22		Arnott	285	
Graig Ship. £1	£21½	+1½	Carroll (P.J.)	85xd	
Higsons Brew.	70		Concrete Prods.	93	+3
Holt (Jos) 25p	480		Heiton (Hldgs.)	30	
I.O.M. Stm. £1	157		Ins. Corp.	400	
Pearce (C. H.)	870		Irish Ropes	42½	
Peel Hldgs.	100		Jacob	59	
Sheff. Refrsmt	97		T.M.G.	19	
Sindall (Wm.)	195		Unidare	100	

OPTIONS

3-month Call Rates

Industrials					
A. Brew	6½	House of Fraser	14	Utd. Drapery	6½
BOC Intl.	11	I.C.I.	20	Vickers	18
B.S.R.	7	"Imps"	7	Woolworths	6
Babcock	11	I.C.L.	6	**Property**	
Barclays Bank	36	Ladbroke	30	Brit. Land	8
Beecham	18	Legal & Gen.	20	Cap. Counties	11
Blue Circle	35	Lex Service	10	Land Secs.	37
Boots	20	Lloyds Bank	28	MEPC	20
Bowaters	24	"Lofs"	4½	Peachey	15
Brit. Aerospace	17	London Brick	7	Samuel Props.	13
B.A.T.	25	Lucas Inds.	18	Town & City	2¾
Brown (J.)	9	"Mams"	20	**Oils**	
Burton Ord.	14	Mrks. & Spncr	11	Brit. Petroleum	38
Cadburys	7½	Midland Bank	26	Burmah Oil	16
Courtaulds	7	N.E.I.	8	Charterhall	8
Debenhams	10	Nat. West. Bank	32	KCA	22
Distillers	17	P & O Dfd.	12	Premier	7½
Dunlop	8½	Plessey	28	Shell	32
Eagle Star	25	Racal Elect	34	Tricentrol	30
F.N.F.C.	3	R.H.M.	5	Ultramar	44
Gen. Accident	30	Rank Org. Ord.	18	**Mines**	
Gen. Electric	60	Reed Intnl.	15	Charter Cons.	21
Glaxo	28	Sears	5	Cons. Gold	45
Grand Met.	18	Tesco	5½	Lonrho	9
G.U.S. 'A'	44	Thorn EMI	30	Rio T. Zinc	45
Guardian	30	Trust Houses	15		
G.K.N.	15	Tube Invest	18		
Hawker Sidd	25	Turner & Newall	10		
		Unilever	50		

"Recent Issues" and "Rights" Page 22

FINANCIAL TIMES
Monday July 6 1981

Soviet Union seems cool over Afghanistan talks

Carrington begins Soviet visit

BY OUR FOREIGN STAFF

LORD CARRINGTON, the Foreign Secretary, arrived in Moscow last night for talks with Mr Gromyko, his Soviet counterpart, on his EEC-backed initiative to seek Russian withdrawal from Afghanistan.

Signals from Moscow, however, do not augur well for an early response to his proposals for a two-stage international conference to resolve the issue.

Tass, the official Soviet news agency, denounced the "so-called initiative" over the weekend and said the only true path for a settlement is negotiations with Afghanistan's neighbours, Iran and Pakistan. Both however, have refused to recognise the Kabul regime.

The main sticking-point appears to be that the European proposal excludes participation by the Soviet-backed Government in Kabul in the first stage of a conference.

Lord Carrington's plans provide for a first-stage meeting of the five permanent members of the UN Security Council (Britain, France, the Soviet Union, China and the U.S.) with representatives of Pakistan, India and Iran. This would seek to win agreement on "safeguards" against external *intervention and on* troop withdrawal.

Representatives from Afghanistan would be invited to the second-stage meeting with the objective of implementing agreements reached at the first conference, and would formulate plans to ensure the creation of an independent and non-aligned Afghanistan.

The EEC communique on the proposals was carefully worded to avoid an early argument over who the representatives should be.

Meanwhile, Lord Carrington's "private and informal" meeting in London yesterday with M Claude Cheysson and Herr Hans-Dietrich Genscher, his French and West German counterparts, angered the Italians who feel they have been snubbed. The Italian Foreign Ministry said on Friday that the meeting was "as damaging as it is useless."

The statement added: "Italy has responsibilities in the European Community and international affairs that certainly are not inferior to those of the other three western democracies."

While British Foreign Office officials would not be drawn last night on the substance of the London talks, it is believed M Cheysson was invited partly because Britain wanted to be sure that the position of the British and French Governments was fully understood. Herr Genscher was invited to brief Lord Carrington on the meeting in Moscow last week between Herr Willy Brandt, the former West German Chancellor, and President Brezhnev.

David Dodwell writes: A senior Foreign Office official said yesterday there was a degree of false optimism in some quarters over the prospects of progress in Moscow.

Speculation that there was a "new flexibility" in Moscow, fuelled by reports based on the talks last week between Herr Brandt and Mr Brezhnev, raised hopes that the Kremlin might be sympathetic to the initiative and might even be considering seriously the possibility of troop withdrawal.

Cooler assessment makes it clear that there is no shift in the Soviet position, notwithstanding the fact that they have decided not to snub the plan out of hand.

K. K. Sharma writes from New Delhi: Mr P. V. Narasimha Rao, the Indian Foreign Minister, is visit Moscow this month to pressure the Russians into reaching an early political settlement on Afghanistan and to assure them that Indo-Soviet ties remain undiluted by the recent agreement with China.

McGahey poised to win TUC council post

By Christian Tyler, Labour Editor

MR MICHAEL McGAHEY, vice-president of the National Union of Mineworkers and a former chairman of the Communist Party of Great Britain, is poised to win a place on the general council of the TUC alongside Mr Arthur Scargill the Yorkshire NUM president, following a voting switch by one of the union's moderate areas.

Mr McGahey is expected to clinch the job this week when the NUM's delegates conference will also try to put the miners at the head of a campaign against Government policies on wages and public sector investment.

The union's Left-wing will try today further to underline its advance by urging delegates to commit the NUM's 240,000 votes to Mr Tony Benn in the October election for the deputy leadership of the Labour Party.

The key to these moves is Mr Scargill, who is now clear favourite to succeed the moderate Mr Joe Gormley as president of the union before the next delegate conference.

Mr Scargill has already taken his place as one of the NUM's two TUC general councillors along with Mr Gormley who steps down this September. The vacancy was due to be filled by another moderate, Mr Ray Chadburn of the Nottinghamshire area, but now Mr Chadburn may never reach Congress House.

The union chooses its TUC nominees a year in advance. At the last conference Mr McGahey and Mr Chadburn clashed for one of the nominations and the issue was decided in Mr Chadburn's favour by the casting vote of Mr Gormley.

But since then, the Midlands area of the union has changed its mind and will be voting for Mr McGahey this week. In theory, Mr McGahey would not go on to the general council until September 1982. But the Left will argue that Mr Chadburn will be a "lame duck" representative and that Mr McGahey's nomination should be brought forward a year. One other possibility is that Mr Lawrence Daley, NUM national secretary who was defeated in the Chadburn-McGahey contest last year, might stay on the TUC for another year.

Mr McGahey would become the third Communist on the general council.

The main controversy when the NUM conference opens in Jersey today will be over the Labour Party's leadership. Mr Scargill will challenge the weekend decision by the conference standing orders committee (known as the business committee) not to accept his area's emergency resolution backing Mr Benn for the deputy post.

Pay policy breach likely Page 6

THE LEX COLUMN

New tests for the equity market

Six months ago this column looked ahead to the prospects for the UK equity market in 1981 and came to the conclusion that there need be no great anxiety about the course of the indices—indeed, there was a good chance of a decent second leg for the bull market—but that there would not be any great market boom.

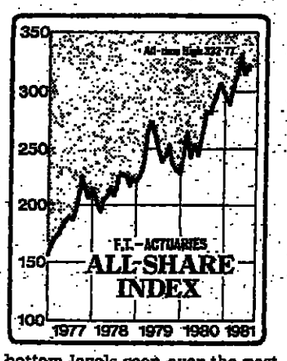
This latter comment was looking distinctly exposed as the market ran into something of a buying panic in April, leading to a high point at which the FT 30-Share Index was showing a rise of 26 per cent since the beginning of the year. However, the All-Share Index was balancing the gains on industrials against the marked weakness of oils and the All-Share high on May 1 showed a rise of only 14 per cent.

Subsequently the market's enthusiasm boiled over, in the absence of any hard economic facts to sustain the bullishness about the depressed industrial sectors, and in the face of a stream of rights issues culminating in the £624m blockbuster from BP. Even so, the market as a whole has held up much better than has been suggested by the narrow 30-Share Index. The All-Share, aided by recent strength in the financials, is only about 3 per cent below its high.

In one respect, the overall strength of equities has been a little surprising in view of the disappointment of New Year hopes about interest rates. Minimum Lending Rate has come down, but only in a very politically inspired way, and long rates have actually risen by a point or so during the past half-year. The yield gap between gilt-edged and equities has widened to record levels.

In terms of the trend in the underlying economy, investors can be little the wiser now than at the start of the year. The economy has probably hit a bottom, but the latest news from the factories and the shops is that no recovery has yet been seen, and it is still not possible to pinpoint the moment at which the destocking phase will end. Sterling has sagged back from the improbable levels of last winter, which is good for exporters' profitability, but correspondingly, hopes of single digit inflation during 1981 have mostly been abandoned.

Out of this unpromising mix of data and speculation, the bulls can still extract the justifiable hope that industrial profits are about to turn up sharply, though only from the rock bottom levels seen over the past year or so. Not only will UK margins begin to be restored, but overseas earnings will look much healthier when translated at $1.90, or less, to the £ instead of $2.40.



But in the end, the market will need to see genuine dividend rises to give substance to accounting numbers printed in annual reports. After a number of good years for real dividend growth, the past 12 months have been very poor, with the All-Share's 750 constituents producing only an average 3 per cent growth in money terms (or perhaps minus 7½ per cent real). And excluding the comparatively generous oils and financials, money dividends have actually fallen—by about 2½ per cent for the 488-share Industrial Group.

Of course, the equity market is willing to look ahead significantly more than a year. Despite the poor dividend showing, the Industrial Group Index has outperformed the All-Share by some 8 per cent over the past 12 months. And maybe the major cuts of recent months from the likes of ICI and GKN will not recur. Even so, it is unlikely that dividends will match inflation in the year ahead. And there is now another £1bn tranche of indexed gilts to force fund managers to ask whether a yield of 5¼ per cent on industrial shares is enough to compensate for the risks.

Perhaps the risks in a broadly spread equity portfolio are not all that large. The All-Share Index has maintained an amazingly steady gentle uptrend since the immediate aftermath of the recovery from the 1974 collapse. World-wide, investors seem to be coming round to a more favourable view of equities against bonds.

The 5.6 per cent yield currently provided by the All-Share Index has in the long run proved a sound basis for investment. But it may now be time to think about a policy of short-term caution. The past few months have seen slack monetary conditions in the UK, with bank loan demand weak, the money supply overshooting, albeit for "temporary" reasons of the civil servants' dispute, pressure on sterling continuing and if industrial destocking ends, the monetary climate could change noticeably. Many any weakness in equities will just be a matter of a dip beneath the trend line rather than a major bear phase. But any major peaks later this year are likely to offer opportunities for taking profits.

Tax credits

It is well known that the U is a corporate tax-haven, b less generally appreciated h difficult it is for companies take full advantage of the c cessions lavished on them. T difficulty is measured by EEC-style lake of unused maybe unusable — tax allo ances. £30bn is already sloshi inertly about in balance shee and another £5bn will probal be pumped in this year.

Unrelieved advance corpo tion tax (ACT) is a paral phenomenon. It has been a st point for years with compan which make most of their p fits abroad but pay their di dends in the UK. More recen — as profits slip — even co panies which operate entire within the UK are falling vict to unrequited ACT; over-dist bution commits them to p more ACT than can be off against their diminished ma stream liability.

An ingenious scheme whi might ease some of these predicaments has now been pr posed by Professor Mervyn Ki of Birmingham Universi speaking at a conference or nised by the Institute for Fis Studies.

The idea is to set up market in tax credits on wh companies which have all ances but no tax liability mi sell their allowances to logical buyers — compan with more tax liability t allowances. The initial fall revenue could be easily enor corrected. The Governm would just have to decide on effective tax rate for the ent pool of corporate profits, leavi the new market to smooth the complex distribution liability between companies.

Moscow to resume vital arms sales to Iraq

By Patrick Cockburn

THE SOVIET UNION is to resume its supply of arms to Iraq for the first time since the start of the war with Iran. The decision is a direct result of the Israeli air raid on the nuclear reactor in Baghdad.

The agreement is extremely important for Iraq because its armed forces are largely equipped with Soviet weapons. During the nine-month war with Iran, Baghdad has had to look to Eastern Europe, notably Poland, for Soviet-type equipment and ammunition.

The breakthrough has come following a visit to Moscow last month by Mr Taha Yassin Ramadan, who is deputy Prime Minister and believed to the most powerful man in Iraq after President Saddam Hussein.

He is understood to have told the Russians that Iraq could no longer accept the suspension of Soviet arms deliveries in the wake of the Israeli raid. In the past the Soviet Union had justified the arms ban by saying that it did not want to get involved in the Iran-Iraq dispute.

Since the start of the war, Iraq has been seeking to buy arms both for immediate delivery and on long-term contract. Poland has sent tanks and ammunition by way of Saudi Arabia.

The Iraqis have also made strong approaches to Britain. British Aerospace confirmed yesterday that an Iraqi team was visiting Britain to evaluate the Hawk jet trainer but the company emphasised that the Iraqis were also considering other trainers. The Franco-German Alphajet is likely to be another contender.

If the British Aerospace deal goes ahead, the Iraqis would build the Hawks under licence.

The Iraqis have also shown great interest in the Rapier anti-aircraft missile system manufactured by British Aerospace. The Soviet SAM-7s currently in use in Iraq have had little success in shooting down Iranian aircraft.

Britain is interested in selling arms to Iraq but has stressed that this will not happen until the war with Iran ends.

● A Kuwaiti military team is in Moscow to purchase weapons.

Hopes still high for Ulster hunger strike settlement

BY STEWART DALBY IN DUBLIN

HOPES REMAINED high last last night that some progress was being made towards a resolution of the hunger strike crisis at the Maze prison near Belfast, Northern Ireland following a second visit to the eight hunger strikers by the Irish Commission for Justice and Peace.

Neither the British Government, in the form of Mr. Michael Alison, Minister of State with responsibility for prisons, who remained in the province over the weekend, nor the commission was prepared to say last night whether a breakthrough was any nearer. It was not clear whether members of the commission would be holding a further meeting with Mr. Alison.

Despite the official silence there is optimism among observers on three grounds.

First: The meeting yesterday lasted a long time which suggests the hunger strikers are not rejecting the commission's overtures out of hand. The members of the commission which was established by the Roman Catholic Church, but also include lay members, entered the Maze at 10.30 am and did not leave until 4.30 pm.

Second: The follow-up visit came after publication of one of the most conciliatory statements the H-block protesters have made.

Mrs Thatcher has refused to grant the demands, saying that to do so would be tantamount to conceding political status to convicted terrorists.

The conciliatory statement from the H-block prisoners followed a detailed statement from Mr Humphrey Atkins, the Secretary of State for Northern Ireland. He said that there would not be any concession on the principle of political status, but hinted there could be movement in the context of general prison reform.

Dispute

The hunger strikers' statement said the Government had been "misinformed" about the nature of the dispute.

On the question of work and free association, they appeared to be making some movement. They acept "supervision need not be restricted." They imply there will be no interference with prison officers who maintain their supervisory role.

They now appear to accept that association of prisoners would be within only 25 wings of the H-blocks although they would want visits allowed from one wing to another.

The statement also said that "compatible arrangments" over their refusal to do prison work could be "availalbe without a loss of principle."

Third: members of the commission are understood to have spoken to Mr Brendan McFarland, 28, who is so-called officer commanding all the Provisional IRA protestors in the Maze. This includes not only most of the hunger strikers but also the majority of the 420 so-called dirty protestors.

The Provisional Sinn Fein, the political wing of the Provisional IRA, has said that it would be essential for anybody attempting to end the dispute to talk to Mr McFarland.

The new Irish Fine Gael Government of Dr Garret FitzGerald is known to be extremely concerned about the hunger strike. Government spokesmen had no comments to make yesterday. But it was revealed that Dr FitzGerald had been in touch with the British Government at the highest level following his meetings with the families of hunger strikers. Dr FitzGerald cancelled a trop to Cork to stay in touch with the situation.

Whitelaw may set up riot probe

BY LISA WOOD

MR WILLIAM WHITELAW, the Home Secretary, will study reports today on the two violent incidents involving black and white youths at Southall, London and Toxteth, Liverpool, this weekend and decide whether to set up another public inquiry.

Calls for an inquiry on the lines of that being conducted by Lord Scarman into the Brixton riots have already been made by the Pakistan Welfare Association in Southall.

The Home Office said that it was too early to speculate whether a public inquiry would be set up.

The Government may take the view that a second inquiry would be unnecessary in view of studies already under way. The conclusions of the Scarman Inquiry may have wider implications and a government study is being made into allegations concerning racial attacks.

The two incidents yesterday brought a call from Mr David Lane, chairman of the Commission for Racial Equality, for the Public Order Act to be strengthened.

Mr Lane, a former Conservative MP, said race relations legislation was not effective enough. Speaking on BBC Radio, he said: "The Public Order Act needs to be strengthened to give greater powers to control or ban provocative processions and marches. It must also be strengthened to prevent incitement by slogans, leaflets and inflammatory speeches."

He said that extremist groups were responsible to some extent for recruiting disaffected young whites and then "infecting them with their sort of racialist views and propaganda."

But he added: "I do not believe banning the organisations is the answer. The answer is strengthening the law which forbids incitement to racial hatred and strengthening the law to give more control over inflammatory processions."

It is likely that Mr Whitelaw will come under pressure today at the Conservative backbench home affairs committee for tighter immigration laws. There is also anxiety about the police, who have said they need more money for equipment and protective clothing.

Mr Teddy Taylor, Conservative MP for Southend East, has called for the use of water cannons to deal with rioters. He said this weekend there was a need for a full Home Office review of the way in which the police dealt with riots.

Weather

UK TODAY

Cloudy with rain at times.

London, S.E. England, E. Anglia
Bright intervals, rain later. Max. 20C.

S., E., N. and N.E. England, Midlands
Bright at first, becoming cloudy with some rain. Max. 18C.

S.W. England, S. Wales
Cloudy, rain at times. Max. 17C.

N. Wales, N.W. England, Lake District, Isle of Man Scotland, Orkney, Shetland, N. Ireland
Rain at first, becoming brighter with showers. Max. 16C.

Outlook: Becoming warm and dry.

WORLDWIDE

		Y'day midday °C	°F			Y'day midday °C	°F
Ajaccio	S	24	75	Jersey	R	17	63
Algiers	S	26	49	L. Pims.	S	24	75
Amsdm.	C	19	66	Lisbon	S	24	75
Athens	S	31	88	Locarno	F	23	73
Barcina.	S	23	73	London	F	19	66
Beirut	S	30	86	Luxmbg.	C	20	68
Belfast	F	17	63	Luxor	S	38	100
Belgrd.	S	22	72	Madrid	S	28	82
Berlin	S	21	70	Majorca	S	28	82
Biarritz	C	19	66	Malaga	S	25	77
Bmghm.	R	17	63	Malta	F	28	82
Blackpl.	R	17	63	M'chstr	R	17	63
Bordx.	F	23	73	Milan	S	24	74
Boulgn.	F	18	64	Moscow	S	24	74
Bristol	R	16	61	Munich	F	21	70
Brussels	F	21	70	Naples	S	28	82
Budpst.	F	23	73	Nwcstl.	C	19	66
Cardiff	F	17	63	Nice	F	22	72
Cas'b'ca	S	23	73	Nicosia	S	30	86
Cologne	F	21	70	Oporto	S	21	70
Cpnhgn.	F	19	66	Oslo	C	20	68
Corfu	S	31	88	Paris	F	22	72
Dublin	C	16	61	Prague	F	21	70
Dbrvnk.	S	26	79	Rykjvk.	S	13	55
Ednbgh.	C	17	63	Rhodes	S	27	81
Faro	S	27	81	Rome	S	27	81
Florence	S	29	84	Salzbrg.	S	23	73
Frankft.	C	21	70	Stckhm.	S	19	66
Funchal	S	21	70	Strasbg.	F	23	73
Geneva	F	21	70	Tangier	S	28	82
Gibrltr	S	23	73	Tel Aviv	S	29	84
Gl'sg'w	R	15	59	Tenerife	S	21	70
G'nsey	C	16	61	Tunis	S	28	82
Helsinki	R	13	55	Valencia	S	27	81
Innsbrk.	F	23	73	Venice	S	25	77
Inverns.	C	17	63	Vienna	F	22	72
I.o.Man	C	15	59	Warsaw	F	16	66
Istanbul	F	26	79	Zurich	S	22	72

C—Cloudy. F—Fair. Fg—Fog. H—Hail. R—Rain. S—Sunny. Sl—Sleet. Sn—Snow. —T—Thunder. †Noon GMT temperatures.

Continued from Page 1

Mexico

market, but decided to raise them again after the intervention of President Jose Lopez Portillo.

The French Government was informed last week of the Mexicans' "unhappiness" at CFP's decision. But it was clearly taken by surprise at the strength of the Mexican Government's riposte.

Officials had originally thought that the matter had been settled in talks last week between the Mexican Ambassador and M Edmund Herve, the Energy Minister, who said that France had reaffirmed its aim of developing close relations with the Mexicans on energy matters. And last Thursday, the Mexican Industry Ministry said that the country, the world's fourth-largest oil producer, and France would continue to "collaborate widely" despite the suspension. The decision by CFP, in which the Government has a 34 per cent stake, came hard on the heels of cut-backs by other clients of Mexico. But so far, no retaliatory action has been taken against them.

Toxteth shattered

Continued from Page 1

petrol bombs, but by the time they were throwing them we were already here."

Mr John Arboine, a leader of the local black community, said: "It was not a race riot. There were blacks and whites together and no elements from outside. Anyone who says there were is speaking a load of rubbish.

"The situation here is bad. People have put up with it for many years. Now things are breaking down. Nearly all of the youngsters round here are unemployed.

"It's not a question of blacks versus the police. It's a question of the community, the people, versus authority.

"The police symbolise authority, and have the blunt end of the stick for something that is not their problem.

Mr Ken Oxford, Chief Constable of Merseyside Police, said yesterday: "We are the symbols of authority and discipline, which are anathema to some of these people, and we are going to be attacked.

It is not a racial issue. Different ethnic groups have been part of the indigenous community here for at least 100 years, and we have good relationships in the area with all the community leaders."

He laid the blame for the riot on "a crowd of black hooligans making life unbearable and indulging in criminal activity." They had been joined by "white people of criminal propensity who latch on to such events."

Police policy, he said, had been directed at containment of the trouble.

On the street, however, people did not share Mr Oxford's view. Black and white teenagers who had taken part in the riot said that they believed it was inevitable.

Social discontent was simmering anyway, and they claim a provocative and visible build-up of police in the area throughout Saturday.

Mr Arboine thinks that plain-clothes officers should have moved in on Saturday to investigate Friday night's incident, and that numbers of uniformed police in the area should have been kept to the barest minimum.

Small things, he feels, can tip the balance between order and disorder in an area of general social discontent where "most of the property makes the city look like garbage."

Mr. Oxford stresses that his first duty is to maintain law and order.

"We did not over-police that area," he said. The reports he had been receiving were that there would be "a bloodbath in Liverpool on Saturday night."

The "bloodbath" did in fact put 11 policemen in hospital with fractures and head injuries, and leave 59 nursing lacerations, bruises or broken teeth. As he finished his Press conference yesterday Mr. Oxford hurried off to the hospital to visit his injured men.

● After visiting the hospital Mr. Oxford repeated that he blamed "thugs and hooligans" for the violence.

"I think society and the community at large have been very complacent, and we have allowed discipline to be eroded. I have a responsibility for law and order and I will see that the law is enforced, hopefully in a civilised manner."

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